Designing Trailheads to Support Diverse Users:
A Case Study on the Florida National Scenic Trail

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by Anya Dobrowolski

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Abstract

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As the United States becomes a more diverse society we struggle with stratification of social classes. The homogenous group of users that engage in wildland recreation activities, such as hiking, is problematic. One single group cannot be called upon to advocate for the health of public open space. A secure future for public land will rely on stewardship from the diverse population to whom it belongs. By encouraging diversity in recreation users on public lands, we have the opportunity to inspire a larger group of land stewards. This will increase the social capital of our public lands, combating threats to the land, such as poor land use decisions and water pollution.

This project aims to understand the relationship between constraints to accessing wildland recreation and the physical environment of trailheads, which are the threshhold between town and trail. Special attention is paid to the barriers that many Americans identify in accessing leisure activities, particularly hiking trails. The project focuses on the Florida National Scenic Trail (FNST), which is managed in a partnership between the United States Forest Service and the Florida Trail Association, and multiple landowners. Through a case study investigation of FNST trailheads, the role of the physical environment is examined, with examples showing how it may add to the constraints that underserved populations face in accessing the trail. The result is a set of design strategies that focus on serving under-represented populations along the FNST. They are described in a way that allows creative freedom for site designers and volunteers but also provides guidance to the non-designers who are often responsible for designing and building FNST trail facilities. The approach is anchored by a case study analysis of opportunities and constraints available on five FNST trailhead sites. The resulting design patterns are then applied to two of the five case study sites to show how these strategies are realized in built form. The goal of the case study designs is to demonstrate how to engage a broad spectrum of the population, while reflecting the values of the land management agency responsible for the site. In the conclusion, general recommendations for appealing to a diverse demographic at trailheads and other recreation portals, which may be applied to wide range of projects, drawn from the FNST case study.

Table of Contents

Preface

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At age 22 I relearned how to walk. As a young child I had spent most of my free time playing outside in the woods near my parents house in the Washington DC suburbs. I frolicked in the meadow between our townhouses and the forest, kicking a soccer ball if it had been mowed recently or just rolling in the tall grass when they stopped mowing it. I walked in the forest listening to sticks snap beneath my feet, watching the light move over the course of the day. As I grew older I became consumed by indoor activities. I studied music passionately, played volleyball fervently, studied for school diligently, and watched television lazily. I lost my interest in birds and trees. At sixteen, I got my driver's license and experienced the freedom that a car gave me, and I grew cynical towards the environmentalism that I'd leaned towards as a young child, never realizing that I was losing the freedom that I found in the woods as a child.

So at age 22 I graduated from college and was in the midst of what some would call a "spiritual crisis." My passion for studying and teaching music dwindled as I earned my music degree and I had not the slightest clue of what I would be doing with the rest of my life. Volleyball had fallen by the wayside during as I spent the majority of my hours in my college's cramped practice rooms—and television was just boring. And so I needed to find something new to be excited about. Or perhaps something old.

A friend of mine from high school and I somehow ended up in Colorado for summer jobs after we'd finished our respective programs. He was training for a 100-mile foot race. On his days off from training we would go for "easy" day hikes. I had never hiked more than two miles ever in my life but was happy to follow my good buddy into the mountains for hikes. I was hooked by the freedom I enjoyed on the trail and by how my senses were engaged. Feeling fully present, I savored the burning in my lungs and quadriceps, gaining elevation and searching for the next great vista. At first, the idea of heading out for a hike by myself was incredibly intimidating. I was afraid of bears and twisted ankles and strange people. After a few trips into the hills with my friend, I felt comfortable treading the trail by myself but I am quite sure that I never would have had the courage to undertake these explorations on my own without this introduction.

My relatively recent experiences have led me to many observations about the undeveloped or "natural" world and our place in it as humans; I have also had the opportunity to observe the high level of joy on the faces of others when I am out in the woods and the hills. It is not too often that I have seen people having a truly miserable time when they are hiking in the mountains, tromping through the woods, watching the sunset over a lake, or sauntering along a pristine coastline. So my hope is that I, as a designer, may be able to help others experience these wonderful, present moments of real, unadulterated joy.

This passion for the outdoors, combined with my deep convictions about the importance of equality and social justice, led me to another personal observation about people on trails: It tends to be a pretty homogenous group. This causes me great concern about the security of our public land in the future, and really for society at large. I've been wondering why the groups are so homogenous and what role, if any, design plays in reinforcing this phenomenon. These are the experiential, philosophical, and ethical roots of this investigation.

INTRODUCTION

"In every walk with nature one receives far more than he seeks."
~John Muir

Problem Statement: Introducing Underrepresentation

Since the birth of the National Parks movement, our public landscapes have been one of the things that distinguish contemporary America from its European roots. Our public lands, such as National Forests and Grasslands and National Parks, represent democracy and equality. They allow all citizens and other visitors to enjoy the diversity, splendor, and abundance of our nation's beauty. While our public recreational lands are open to any and all visitors, a visitor to America's national parks or national forests often find a homogeneous user group that does not reflect the racial, ethnic, socioeconomic, or generational diversity of the United States.

The homogeneity of visitors in federal public lands is problematic as the United States becomes a more ethnically, racially, and generationally diverse society. As the American demographic make-up shifts to one of increasing cultural diversity, the literature suggests that outdoor recreation appeals predominantly to the top tier of our social hierarchy: young, affluent, Caucasian men. (Jackson & Henderson 1995; Johnson et al. 1998; Johnson et al. 2001; Martin 2004; Rodriguez & Roberts 2002; Shinew et al. 2006; Shores et al. 2007; Stein et al. 2009; Welsley & Gaarder 2004; U.S. Forest Service 1997) A single group cannot be called upon to advocate for the health of public open space. A secure future for public land will rely on the support of a population as diverse as the people to whom it belongs. The design and management of these lands currently tend to ignore the diverse circumstances of its users, discouraging diverse peoples from experiencing these landscapes.

Academics and professionals in the disciplines of leisure studies and parks and recreation management study underrepresentation of social groups in outdoor recreation. Researchers have repeatedly identified the phenomenon of social group underrepresentation, and yet few tangible solutions have been offered in the literature. Further, the question of how the physical environment at outdoor recreation facilities, such as trailheads and visitor's centers, may contribute to underrepresentation has not been addressed at all.

This project strives to understand the following questions:

1) What are some ways the physical environment of trailhead facilities contribute to the underrepresentation of social groups (based on gender, age, socioeconomic status, and race/ethnicity) in wildland recreation?

2) What are some practical design strategies that can be implemented to encourage a more diverse demographic of users to participate in outdoor recreation?

As the project evolved, three distinct goals became clear:

1) To identify a theoretical framework for understanding the phenomenon of social group underrepresentation, (based on gender, age, socioeconomic status, and race/ethnicity), in outdoor recreation that has implications for the physical environment;

2) To employ that framework to identify and explain ways in which the existing conditions of trailheads may reinforce the existing hierarchy of outdoor recreation users;

3) To develop a set of design strategies for trailhead development which creates a more supportive environment for diverse social groups.

photo by Anya Dobrowolski

The Florida National Scenic Trail enters a stand of long leaf pines in the Appalachicola Natonal Forest.

New Patterns in Recreation, Demographics, Lifestyle: Contemporary American Context

Today America is seeing several social, environmental, and economic trends that underscore the importance of the totality of our population connecting to open space. Changing demographics, the rapid urbanization of our population, an increase in access to technology, health issues related to inactivity, and extreme economic instability are several of the issues that public land managers must engage aggressively to serve the American population.

The US Census estimates that between the years 2000-2050 the percentage of Americans identifying themselves as Hispanic or of Hispanic heritage will increase from 12.6% to 24.4% and that the Asian-American population will increase from 3.8% to 8.0% (US Census Bureau 2004). Similarly, our population is rapidly aging with census projections stating the percentage of Americans age 65+ will increase from 12.4% in 2000 to 20.7% in 2050 (U.S. Census Bureau 2004). These projections have major implications for the way that we design outdoor recreation experiences.

In 2000, the US Census estimated that 80% of Americans lived in urban areas (US Census Bureau 2004). Although many cities have successful urban open spaces, there is often a spatial disconnect between urban residents and large tracts for open space which provide a place of rejuvenation, away from the noise, pollution, and busyness of urban areas. Density, of course, can help to preserve open space by requiring less land to be consumed by urban uses. At the same time this separation from natural resources encourages a conceptual disconnect about resource consumption. Increasing urban density offers us the opportunity to preserve open space outside of the urban setting but also creates demand for building materials and resource consumption. Without interacting with the materials that we use to build in their unaltered state, such as timber or river rock, we will not understand the impact of their over

consumption. Classrooms vary greatly in their ability or dedication to presenting information and interpretation of natural systems and also on their engagement of outdoor recreation. Outreach programs, such as The Woods Project and Big City Mountaineers, strive to connect urban youth to our great American landscapes, but these organizations can only reach a small sector of the population. Many of us lack an understanding of the interconnectedness of natural systems and our material consumption.

photo by Anya Dobrowolski

Inner city youth from Houston, TX backpack along the Lake Tahoe Rim Trail as particpants in a program by The Woods Project.

At the same time as we are seeing the rise of urban living, we have developed an enthusiastic reliance on personal technology. We can connect to the outside world without leaving our homes by proxy using televisions, computers, and portable technology devices such as smart phones. The increase in access to personal technology has been correlated with a decline in National Parks visitation (Pergams and Zaradic 2006). These

New Patterns in Recreation, Demographics, Lifestyle: Contemporary American Context

technologies do offer us the ability to expand our knowledge base in an abstracted way, but they require a relatively low level of physical activity. These technologies provide a mediated experience of the outdoors, which gives a theoretical understanding of natural resources but does not allow users to taste, touch, or smell these resources. The educational value of these mediated experiences is solely informational and objective. A theoretical understanding does not force the user to confront the impacts of over consumption or mismanagement of natural resources the way that we must when we see a clear cut, gravel pit, or over used campsite.

Engagement with personal technology in our free time competes with time we may spend participating in other, more active, endeavors. This decrease in physical activity is associated with the rise of many health problems in the United States. In 2009, the Centers for Disease Control estimated that 26.7% of Americans are now considered obese. Only Colorado and Washington DC have less than 20% of their population estimated as obese while in 1996 no state reported obesity rates higher than 20%. Obesity is related to a number of other diseases including heart attack, stroke, diabetes, stress, and cancer. In 2006, Americans spent an estimated $147 million on obesity-related health issues (Centers for Disease Control and Prevention 2010).

The federal land management agencies show a clear intent to address our current cultural context through programs that engage our diverse population. Through outreach programs, improvements in recreational programming, and the creation and restoration of recreational facilities they strive to increase access and relevancy of outdoor recreation. The renewed dedication to increased access to open spaces addresses each of these factors.

Obesity Trends* Among U.S. Adults
BRFSS, 2009
(*BMI ≥30, or ~ 30 lbs. overweight for 5' 4" person)

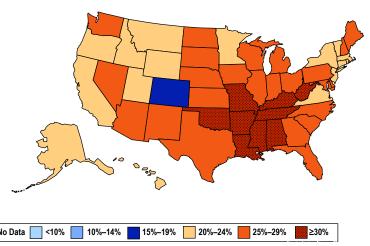| No Data | <10% | 10%–14% | 15%–19% | 20%–24% | 25%–29% | ≥30% |

Fig 1- Obesity Trends in the US by state. Only Colorado and Washington DC have obesity rates of less than 20%. *Source: http://www.cdc.gov/obesity/data/trends.html*

The Benefits of Outdoor Recreation

Since the early days of the National Parks movement enthusiasts, such as John Muir and the Transcendentalist writers of New England, have extolled the virtues of time spent in the out-of-doors. Muir advocated for the preservation of places of extraordinary scenic beauty on the basis of the spiritual recharging it provides: "Take a course in good water and air; and in the eternal youth of Nature you may renew your own. Go quietly, alone; no harm will befall you." Muir subtly jabs at the ingrained fears that eesterners have about the prospect of spending time in the backcountry, far away from civilization. Since the days of Muir, it has become clear that while Europe has its urban architecture to create identity, America's personality is defined by its rugged landscapes (Nash 1982). Wildland recreation and the enjoyment of scenic beauty are hallmarks of the American experience. The preservation of our open space system is a symbol of our democracy; as a nation all have the right to access these places and to participate in the determination of their future.

Unstructured recreation in the outdoors has many benefits as Muir and his contemporaries described. Time in the countryside allows us to breathe in fresh air and compels us to exercise our bodies. In turn, we experience better muscular, cardiovascular, and immune health. It is one part of our fight against obesity. And because obesity has also been associated with a number of mental health issues such as low self-esteem, depression, and social isolation, improved physical health resulting from time in the outdoors will also help improve our psychological and social health.

The mental and emotional health benefits of outdoor recreation also make ripples in the economy while also leading to a healthier relationship with the land. It can be inferred that the relaxation that outdoor recreationists experience will lead to increased productivity of employees as they return to work refreshed and physically exercised. Wildland recreation is also an inexpensive way to spend free time, as it generally requires little or no fees to participate, and activities such as walking, trail running, and hiking require little to no specialized equipment; these activities themselves have a low carbon footprint.

Time spent in the countryside will lead to a greater appreciation of and respect for the landscape. E.O. Wilson, a contemporary advocate of the importance of connecting to the outdoors, has created the hypothesis of biophilia, which states that humans have an innate connection or affinity to all living beings. However, authors such as Richard Louv, who gained popularity with his book Last Child in the Woods: Saving Our Children from Nature Deficit Disorder, believe that we must regularly interact with these plants and animals with which we hold an affinity to actually feel that affinity. In short, if we regularly interact with places of scenic beauty and biological diversity, we will have an incentive to advocate for their preservation in the future.
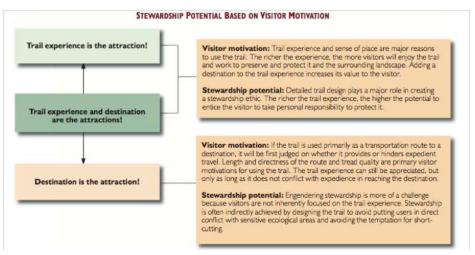

Fig 2- Stewardship potential based on visitor motivation. If users are excited about the trail experience, they will have a higher level of motivation to become stewards. *Source: Minnesota Deparment of Natural Resources, "Trail Planning, Design and Development Guidelines"*

Outdoor Recreation and the United States Department of Agriculture's Forest Service

Providing high quality outdoor recreation experiences in America's National Forests and Grasslands is under the umbrella of the USDA Forest Service's mission to "…sustain the health, diversity, and productivity of the Nation's forests and grasslands to meet the needs of present and future generations." In the past this mission statement largely implied managing forests and grasslands to produce tangible goods so that they would remain viable into the future. While economic wealth generation is still part of the USFS's job, managing properties to appeal to the recreation needs of a demographically diverse nation is of high priority.

The Forest Service's recreation program began in 1919 with hiring of Arthur Carhard, a young landscape architect. He was the Forest Service's first recreation engineer. Carhart was responsible for establishing the first Forest Service recreation site in Pueblo, Colorado. Since then, the Forest Service's recreational holdings and wilderness areas have grown, and today the Forest Service is an agency that is consistently trying to meet the needs of recreationists with the goal of "Renewing body and spirit, inspiring passion for the land."

Acknowledging and engaging the projected demographic shifts that the US faces over the next fifty years will be critical in meeting the Forest Service goal of giving Americans the opportunity to connect with the land in an intimate, meaningful way. The Forest Service document entitled The Framework for Sustainable Recreation (2010), that elaborates on this goal through the lens of three key components of sustainability: economic sustainability, social sustainability, and ecological sustainability. A key innovation in this document is the establishment of a unified, agency-wide vision of the Forest Service recreation program's goals; it then lays out a set of objectives and strategies that will be used to meet these goals. This is a shift from the historical model, in which Forest Service recreational programming was decentralized and where programs and facilities were implemented based on available funding, not necessarily referring back to any overarching, agency-wide framework. Today, the USFS is moving towards a model that looks at the needs of the population and makes decisions based on those needs. The development of strong public/private partnerships and public engagement are emphasized in this document. In this way, the Forest Service is empowering the population to take ownership of what happens on their public lands and at the same time, it gives other groups and agencies the opportunity to benefit from the Forest Service's resources. The objectives of this new paradigm in management emphasizes a holistic understanding of recreation management, that sees the Forest Service as part of a greater web of land owners and managers, including federal, state, local, tribal, private, etc. These land managers are now encouraged to use a research based approach that invites innovative and creative solutions.

The guiding principals that this document lays out underscore the need for an interdisciplinary approach to the management of recreation programs, with an understanding of Forest Service lands as part of a larger landscape mosaic, a commitment to the three-pronged understanding of sustainability, the importance of communication, and passionate dedication to the belief that contact with public lands is an integral part of the American experience and of a healthy lifestyle. Within the strategies stated in the document several address the physical infrastructure of trails and their associated facilities. In particular, several goals relate the importance of improving existing facilities and creating facilities in currently unmanaged areas, and the need to further invest in places and programs of extraordinary scenic and historic significance (such as National Scenic and Historic Trails). The strategies also focus on the need to engage the public in stewardship efforts with an understanding that the first step to stewardship is building an appreciation for these resources through participation in recreation activities.

The Poetics of Trails & Projoect Description

Trails are democratic footpaths that allow us to explore our nation's identity. They can have many different characters based on their geographic location; their original intended use, and the intent of their designers. Trails can be short or long; less than a mile or several thousand of miles in length. Urban trails connect us to our cultural heritage by leading us from one historic site to the next. Other urban trails connect us to our contemporary culture by showcasing local artists. Trails in the country, traveling through forests, savannahs, high mountains, wetlands, swamps, beaches, and grasslands connect us to the ecosystems of which they are a part and the geological history of places.

Non-motorized trail users have a low carbon footprint compared to drivers. Trail users may become land stewards; they learn the specialness of the places they explore via trails and have an emotional investment in preserving them.   As Aldo Leopold said, "Harmony with land is like harmony with a friend; you cannot cherish his right hand and chop off his left." Trails also can be corridors of green that protect or improve the environmental health of an area. They can provide linear connectivity for humans and other creatures travelling from one place to the next.

The act of walking on a trail, no matter the type of landcover, gives us the opportunity to exercise our bodies, clear our minds, and restore our souls. Trails are perhaps the most intuitive form of recreation, requiring no specialized gear, and little preparation, depending on the challenge of the terrain. On trails we find the occasion to "re-create" ourselves, relaxing and returning to the present moment. Considering all of the benefits that trails offer to our society, it is surprising that such a narrow demographic of users are on them today.

Project Description

This master's project is built around the observation and analysis of existing conditions of the Florida National Scenic Trail's trailheads. Trailheads serve as the entry portal to the trail experience and therefore have an important impact on the desirability to use a trail. The Florida National Scenic Trail (FNST) is a footpath that stretches almost the length of Florida's mainland from Big Cypress National Preserve in the south to the western panhandle's Gulf Islands National Seashore in the north. When complete, the trail will provide 1,500 miles of diverse trail experiences as it passes through National Parks lands, National Forests, designated wilderness areas, state parks, urban parks and sidewalks, and country roads.

This document is divided into four parts that are parallel with the study's process: literature review pertaining to social group underrepresentation in outdoor recreation; case study analysis of five trailheads on the Florida National Scenic Trail; Florida National Scenic Trail Trailhead Design Patterns; and application of design patterns to design trailheads on two case study sites.

Chapter 1 is the literature review, focusing on underrepresentation in leisure activities, in general, and, more specifically, outdoor recreation. The literature review reveals several reoccurring theories that explain underrepresentation of different societal groups based on race/ethnicity, gender, age, and socio-economic status. The six theories identified give insight into why some groups tend to use outdoor recreation more than others, but thier spatial and design implications are yet to be adequately explored. Some implications could be used in thinking about how trailheads may be designed to better support diverse populations.   Using the framework of constraints allows outdoors recreation managers and design professionals with a set of factors to consider when designing trailhead

Project Description

sites, how they connect with nearby communities, and the information and interpretation they offer. This study focuses on nine commonly identified constraints including lack of time, fear of violence or discrimination, lack of discretionary income, and lack of interest.

In **Chapter 2**, the constraints are used as a lens through which to analyze the existing conditions of the trailhead sites. Two sets of visits to FNST sites were made to understand and assess the overall conditions of existing FNST trailheads and to understand the more specific elements of each site that might make them less appealing to some visitors. A critical analysis of the sites lead to an understanding of what site conditions may reinforce or manifest leisure constraints. Some of the undesirable patterns identified included lack of maintenance, out-dated information, and lack of non-automobile connectivity to the sites. These "anti-patterns" are then pared with corresponding leisure constraints and grouped into a set of larger existing paradigms they suggest It should be noted that although the analysis of these sites took place along the FNST, these site conditions are representative of many trailheads throughout the United States.

Using the lessons learned from the constraints analysis portion of Chapter 2, a set of design strategies is presented in **Chapter 3** with the goal of increasing the social relevance of the FNST. These patterns are a set of strategies that can be used to guide the design process for trailheads and access points and include concepts that should be considered at the scales of planning, site design, and informational and interpretive communication. At the planning scale the goal is to connect potential users with the trail in a manner that is meaningful in their daily lives. On the site scale the patterns are used to support a variety of user types, making the sites comfortable places that are easy to find. The informational/interpretive level pertains to how information and interpretation are communicated to site visitors so that they can engage them and peak their interest in using the FNST.
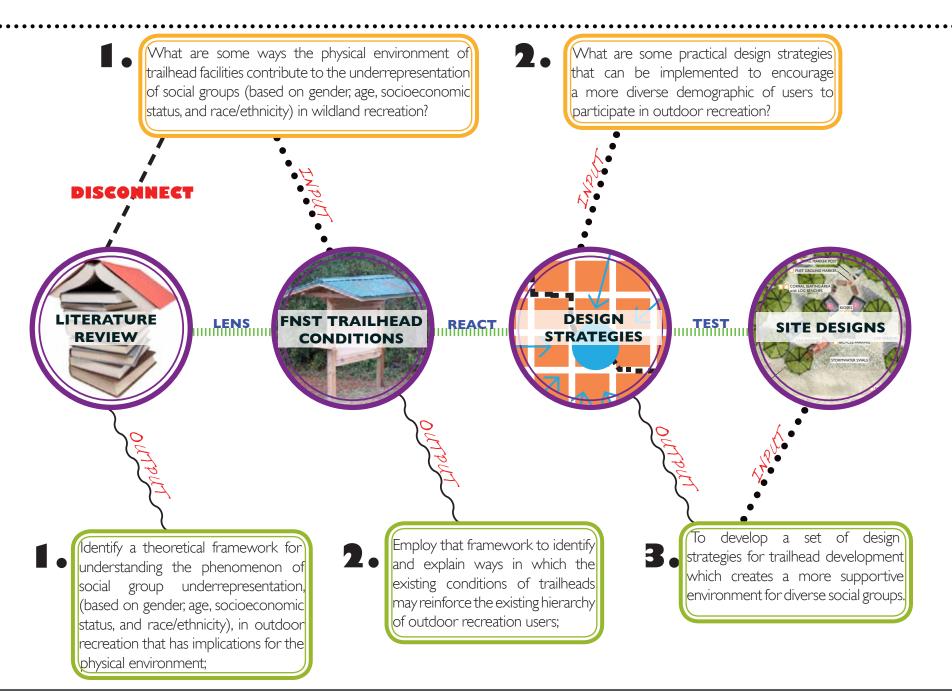
In **Chapter 4** original designs are presented using the design pattern presented in Chapter 3. Descriptions of how patterns are used accompany conceptual plans and 3 dimensional renderings for the trailhead designs. The designs strive to incorporate the design patterns while also incorporating an ethic of lightness on the land. A discussion of the effectiveness of the designs and the ease of implementing the design patterns concludes the chapter.

The **Conclusion** summarizes the goals of the study and evaluates how those goals were achieved. The study's findings are reviewed and a critique of the study methodology is presented. A short discussion about the transferability of the study method and findings concludes the summary section and suggestions for future studies as well as philosophical approaches for the management of the FNST are made.

The assumption cannot be made that simply because a trail exists that it will be relevant to nearby residents. The entire experience of using a trail should be considered when designing and planning trailheads to serve the public. Providing welcoming facilities will will allow new trail users to feel more comfortable as they prepare for their trail experience.

This study aims to offer tangible, practical suggestions for addressing underrepresnetation in outdoor recreation through the design of the built environment. By observing existing conditions and creating strategic decisions related to those conditions, this project follows in the footsteps of great social design researchers such as William Whyte and Christopher Alexander. Like any other type of designed space, the human context should be considered in addition to ecological and economic issues.

Project Diagram

QUESTIONS

1. What are some ways the physical environment of trailhead facilities contribute to the underrepresentation of social groups (based on gender, age, socioeconomic status, and race/ethnicity) in wildland recreation?

2. What are some practical design strategies that can be implemented to encourage a more diverse demographic of users to participate in outdoor recreation?

DISCONNECT

INPUT

INPUT

PROCESS

LITERATURE REVIEW

LENS

FNST TRAILHEAD CONDITIONS

REACT

DESIGN STRATEGIES

TEST

SITE DESIGNS

OUTPUT

OUTPUT

OUTPUT

INPUT

GOALS

1. Identify a theoretical framework for understanding the phenomenon of social group underrepresentation, (based on gender, age, socioeconomic status, and race/ethnicity), in outdoor recreation that has implications for the physical environment;

2. Employ that framework to identify and explain ways in which the existing conditions of trailheads may reinforce the existing hierarchy of outdoor recreation users;

3. To develop a set of design strategies for trailhead development which creates a more supportive environment for diverse social groups.

CHAPTER 1:

THEORETICAL EXPLANATIONS FOR UNDER-REPRESENTATION IN OUTDOOR RECREATION

"If we cannot now end our differences, at least we can help make the world safe for diversity."~John F. Kennedy

CHAPTER 1:
THEORETICAL EXPLANATIONS FOR UNDER-REPRESENTATION
IN OUTDOOR RECREATION

Several theories have emerged to explain the phenomenon of under-representation in leisure activities, particularly in wildland recreation. In order to critique the present study's approach it is critical to understand these frequently tested theories. This chapter will provide an introductory overview and critique of the frameworks for under-representation that reoccur in the leisure studies literature with the goal of identifying a framework that has a high level of applicability to the built environment.

A discussion of six theoretical frameworks commonly used to explain recreation preferences and their potential for impacting the design process opens the chapter. The next section introduces the concept of constraints, constraints categorization, and constraints hierarchy and modeling that are the framework for this thesis exploration. Finally, the last section defines the nine constraints that will be addressed within this project.

Overview

Since the late 1960s, researchers have studied group trends in recreational activities. This area of study, known as leisure studies, investigates the motivations and constraints of participation in outdoor recreation, specifically looking at why some groups tend to gravitate toward certain activities and what prevents them from accessing others. Before delving into the actual constraints explored in this thesis, it is important to be familiar with the theoretical frameworks from which constraints, or barriers, have been identified. Each framework has been explored in multiple studies, but there is consensus among authors that the lack of a comprehensive framework is a major disadvantage in this research.

The literature consistently defines four types of group membership that impact leisure preferences, motivations, and experiences: gender, race/ethnicity, socio-economic status, and age. Race/ethnicity and socio-economic status are the types of social groupings that are most commonly examined in the literature, but the frameworks reviewed in this chapter are transferable to most group types and can be narrowed to study the subset of outdoor recreation within the larger field of leisure. The explanations of underrepresentation identified within these frameworks offer some implications for the planning and design of outdoor recreation facilities and how they are marketed to the public.

Six Common Theories

Ethnicity Theory

Ethnicity (or Subcultural) Theory asserts that attitudes, preferences, and behaviors in leisure activities have their roots in cultural traditions and norms. This theory has major implications for understanding the way different groups recreate. Notably, it is understood that those of Hispanic, Chinese, and African-American heritage tend to recreate in multi-generational family units implying a need to accommodate large groups in outdoor recreation areas (Baas, Ewert et al. 1993; Walker, Deng et al. 2001). Although some of the information gleaned by studying groups through the Ethnicity Theory's framework is useful and even spatially explicit, it has ben critiqued as arbitrary because it does not account for the diversity of intra-ethnic variation within subcultures being studied. A study by Carr and Williams (1993) concludes that, "It is important to understand that there is no 'Hispanic monolith' using the forests (35)." The same study of Hispanic preference for forest visitation finds that assimilation into the dominant culture of the country did factor into attitudes and preferences for experiences in outdoor recreation settings. "This places a burden on managers to make the time and effort to get to know the clientele, essentially the social definitions, of the sites within his/her management area." The study found that Hispanic users wanted to have contact with Forest Service personnel during their visits and that, depending on the level of assimilation into Anglo culture that an individual had, they would have different ethics towards the land.

Ethnicity theory was one of the first that was employed in trying to study the phenomenon of leisure preferences but seems sorely out of date and even closed-minded; this theory cannot account for the potentially wide range of individual variation within an ethnic group. Likewise, it also implies a lack of external constraints and that there is little individual choice in how a person recreates. Rather, the Ethnicity theory says that a person's recreation choices are based on their ethnic background and that ethnic or racial groups prefer certain activities because they "just do." Ethnicity theory's major contribution to the marriage of land management and design is the identification of the phenomenon of underrepresentation in recreational settings but it offers few, if any, tangible strategies to change the phenomenon. If a recreation manager was to use this framework as a lens through which to try to increase user diversity; they may find themselves overwhelmed by trying to cater to aesthetic or management preferences of innumerable social groups.

Six Common Theories cont.

Marginality Theory

Marginality (or Discrimination) Theory links minority population use patterns in parks and other outdoor recreation opportunities to perceived or actual experiences with discrimination (Rodriquez and Roberts 2002). A study by Johnson, Bowker et al. (1998) explains that Marginality Theory links in with social barriers such as lack of a discretionary income, automobile transportation, or access to information about available facilities, implying that if marginalized groups had adequate access to these elements that they would use outdoor recreation facilities more frequently. A survey conducted by Floyd, Gramann et al. (1993) found that Mexican Americans of higher education levels were more likely to use outdoor recreation facilities in their leisure time than Mexican Americans of lower education levels. This hypothesis, although intriguing and relevant, takes into account only a narrow part of the spectrum of possible barriers to accessing outdoor recreation. Nonetheless, Marginality Theory does provide an understanding of some barriers that users may experience in accessing leisure pursuits, such as the ones listed above. And although the Marginality Theory framework is applied in the context of ethnicity and race, it is certainly possible that these constraints would impact groups based on gender, age, and socioeconomic status. Marginality Theory is often juxtaposed with Ethnicity Theory in studies to reveal which hypothesis is more relevant. When looking at this juxtaposition, it seems that there is truth in both theories. It makes sense that there are social norms that influence a person's behavior and also that there are barriers to accessing opportunities based on group membership. The design and communication implications of marginality theory point to a need to try to reduce the constraints mentioned above. Several other theories attempt explain the underrepresentation phenomenon that are not adequately explained in the Ethnicity and Marginality arguments.

Self-Construal Theory

Self-construal is an individual's perception of his/her relationship to other people and purpose in life. Walker, Deng, and Dieser (2001) use Markus and Kitayama's (1991) binary explanation of self-construal, as either independent or interdependent, as a lens to examine the impact of cultural norms on outdoor recreation motivations. According to Walker, Deng and Deiser (2001) Western Europeans and North Americans are more likely to have an independent self-construal, meaning they are most concerned with self-expression and promotion of their individual goals. In contrast, people of Asian, African, Hispanic, and Southern European descent are more likely to have interdependent self-construal, which prioritizes "…belonging, fitting in, and promoting the goals of others (265)."

Walker et al.'s study tests the impact of self-construal on Ethnicity Theory. Survey results show that while ethnicity does affect outdoor recreation motivations it is often mediated by self-construal. The authors report that although some persons may desire the same experiences in outdoor recreation, such as time for quiet and tranquility, their motivations may be different. North Americans and Western Europeans may be motivated to find tranquility to regulate their own emotions. However, a person of Asian, African, Hispanic, or Southern European descent may desire tranquility for the happiness of a group that they travel with. Of course, assimilation in American society will likely have an impact on a member of group with traditionally interdependent self-construal and is another factor that should be tested. The spatial implications of this framework are that if many groups of potential outdoor recreation users come from a tradition of interdependent self-construal, it will be hard to engage those people if facilities are not built to accommodate their personal needs and social needs (Walker, Deng and Dieser 2001).

Six Common Theories cont.

Acculturation Theory

Acculturation Theory has been tested in the study of landscape and leisure preferences of various ethnic groups. It tries to make sense of sub-group variation within the framework of Ethnicity Theory. The Acculturation Theory states that assimilation of an ethnic group into a new dominant culture takes place over generations. For example, Buijs, Elands et al. (2009) published a study showing that Native Dutch people preferred "wilderness" landscapes over landscapes that showed anthropocentric values while Moroccan and Turkish immigrants to Holland preferred the opposite. However, the study also showed that children and grandchildren of immigrants showed a higher preference for "wilderness" landscapes respectively than the immigrants themselves. Likewise, many researchers have concluded that cultural assimilation affected the preferences and behaviors in leisure activities (Baas, Ewert et al. 1993; Carr and Williams 1993; Shaull and Gramann 1998; Virden and Walker 1999). This implies that managers should strive to accommodate the needs of many levels of assimilation into their management and design strategies. One design implication of Acculturation Theory has to do with presentation of information and interpretation at sites. The majority view should not be assumed when presenting interpretive signage or even information considered as basic as Leave No Trace ethics. Acculturation presents another way of reconciling how to fulfill the needs of a society that is becoming exponentially more diverse. It instigates a dialogue about the need to design not only for English speakers but for multi-generational families that may include immigrants, their children, and their grandchildren.

Collective Memory Theory

The strength of an ethnic group's historical association with a land cover type has been identified as a potential constraint to outdoor recreation participation (Shinew, Floyd et al. 2004; Shinew, Stodolska et al. 2006). This theory ties into both Marginality and Ethnicity Theories. The collective memory of a group that has been historically discriminated against may provoke individuals to stay away from a place where violence or discrimination had been perpetrated against their ancestors. Simultaneously, it makes the assumption that members of an ethnic group will not be able to transcend the historical associations with places of past injustice. This assumption appears quite pessimistic and closed minded much like Ethnicity theory. However, it might be more appropriate to link historical associations with current events. In informal surveys conducted at the end of a survey study, Johnson, Bowker et al. (1998) found that the Apalachicola National Forest in Florida is segregated by nearby residents that prevented African-Americans who desired to use the Apalachicola for recreation from accessing many parts of the forest. Whether perceived, remembered, or current, feelings of discrimination at outdoor recreation facilities has management implications related to the need for contact with recreation staff, the maintenance and monitoring of sites, and the design of interpretive and informational signage. However, the greater implication embodied by the Collective Memory and Ethnicity theories is the need for outreach programs that would introduce individuals who are unfamiliar with outdoor recreation to these types of activities. The need to accommodate groups is once again implied by having outreach groups using facilities.

Six Common Theories cont.

Shaw's Three-Part Model of Leisure Constraints

Shaw (1994) presents the logical conclusion that no one of the existing theoretical frameworks satisfactorily explains the constraints that different groups of people have toward accessing leisure opportunities. Instead, Shaw looks at how leisure activities are constrained and can be constraining for women. She proposes a three-parts model that says: 1) "Access to leisure is constrained." Women face structural barriers in their everyday lives that constrain how women will recreate. This part relates closely with Marginality Theory, saying that constraints experienced by a person in accessing outdoor recreation come from structural barriers originating from their membership in a historically discriminated against group. 2) "Leisure itself can be a constraint." This element says that certain leisure activities, as understood in society in general, and portrayed by mass media in particular, have masculine and feminine connotations. This concept also makes reference to Marginality Theory, seeking to fight the connotations of Ethnicity Theory's claims that there are ethnically/racially-determined preferences that humans have for recreation activities. 3) "Leisure can be a form of resistance." Given the constraints discussed in the first two parts of this model, Shaw says that recreation activities can be used to break these social barriers and norms. For this to be true the recreationist must be pursuing an activity, by their own choice, which breaks with social stereotypes for that activity (12-18).

Shaw's model was tested for its applicability to leisure constraints based on race in Shinew, Floyd et al.'s study (2004). The study found that African-Americans and Caucasians had distinct leisure preferences. They found the first two parts of Shaw's model to be correct. However, the third part of the model had somewhat ambiguous results. The study concludes that resistance could be viewed in two ways. The first is that a member of a marginalized group will participate in an activity that is traditionally off-limits. The second is that a member of a marginalized group will choose to avoid the activities of the dominant social group in order to preserve the traditions of their subculture. What this study lacks is conclusion about what the motivations of recreationists are. It is unclear from the results whether those who broke out of the social norms did so because they had a desire to be pioneering or because they simply enjoyed that activity. Whatever the answers to these questions may be, Shinew, Floyd et al.'s Study (2004) showed that these concepts are transferable to the study of different racial, socio-economic, and age groups in society. This study implies that in the planning, designing, and marketing of outdoor recreation facilities it is essential to understand the internal and external constraints that users experience if these amenities are going to be accessible to wide groups of users.

Preliminary Discussion

All of the theories presented above represent one part of an understanding of why certain groups are underrepresented in outdoor recreation. Although these hypotheses have been thoughtfully crafted and should be considered in the planning and design of outdoor recreation experiences and facilities, it is important to understand that no one theory adequately explains the phenomena of recreation choices.

The literature indicates, however, that there are many constraints people face based on their membership in groups. Any individual is always part of multiple groups based on their race/ethnicity, gender, age, and socio-economic status and therefore they are always subject to constraints based on those four factors.

Crawford, Jackson, and Godbey's Model of Leisure Constraints

The theories and research described above imply using preferences as a framework to guide design. Surveying homogenous groups is the methodology used by leisure researchers to determine trends in the preferences of individuals based on group membership. If preferences were used as the framework to guide design and marketing, then as managers, we would perpetuate the problem of prioritizing for one group over another. Although this approach might allow current hierarchies to shift, inequalities and prejudices will continue.

As such, using the concept of leisure constraints as a framework for addressing under-representation in outdoor recreation provides an approach that avoids the inherent difficulties of addressing preferences. In studying the constraints approach it becomes clear that preferences are based on the types of constraints that a person encounters in accessing leisure.

Constraints are another commonly used framework for examining the under-representation phenomenon. The Constraints framework will be used in this thesis to develop design interventions for wildland recreation sites. Crawford, Jackson and Godey (1991) identify three types of constraints: structural, intrapersonal, and interpersonal, . Shores, Scott et al. (2007) tested nine constraints that fall into these categories which will be the framework for this project. Each of these constraints may have explicit implications for the planning, design, and marketing of outdoor recreation opportunities. The next sections will discuss the categorization of constraints, modeling of constraint types, and a hierarchical approach to reducing constraints.

Crawford, Jackson, and Godbey's Model of Leisure Constraints

Crawford, Jackson and Godbey (1991) identified three categories that constraints to leisure fit into: Structural, Intrapersonal, and Interpersonal, which are explained in further detail below.

Structural Constraints

These constraints are commonly conceptualized as "intervening factors between leisure preference and participation" (Crawford, Jackson and Godbey 1991). Commonly sited structural constraints in outdoor recreation include lack of awareness or information about facilities, lack of discretionary income, and lack of transportation to facilities.
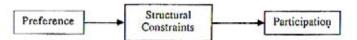

Figure 3-Structural constraints prohibit an individual with an existing preference for a leisure pursuit from being able to participate. Structural constraints behave as a wall between the user and their preferred leisure activity (Crawford, Jackson and Godbey 1991).

Crawford, Jackson, and Godbey's Model of Leisure Constraints

Intrapersonal Constraints

Intrapersonal constraints are sometimes referred to as psychological constraints. These barriers help to form preferences and impact what types of leisure pursuits an individual seeks. As implied by the use of the word "psychological," these factors may be quite internal and have to do with the perception of one's self and their place in the world. Examples of intrapersonal constraints cited in relation to outdoor recreation include societal or familial disapproval of the activity, body image, and perceived skill level.

Figure 4- Intrapersonal constraints influence preferences and therefore impact what activities an individual chooses to participate in (Crawford, Jackson and Godbey 1991).

Interpersonal Constraints

Interpersonal constraints arise from "interpersonal interactions or from the relationship between individual's characteristics." Crawford, Jackson, and Godbey (1991). describe this type in the context of a spousal relationship, saying that interpersonal barriers will come as a result of the combination of the individuals' intrapersonal constraints (311). This could certainly be true of any type of familial relationship as well as friendships. It is easy to imagine someone not choosing to hike because a spouse, child, or friend does not prefer hiking.
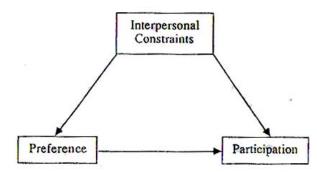

Figure 5-This diagram identifies preference as a filter but for interpersonal constraints but preference also be bypassed and interpersonal constraints may directly impact participation (Crawford, Jackson and Godbey 1991).

Constraint Modeling

Categorizing constraints is an excellent tool for identifying a phenomenon, but categorization does not show how these constraints interact. Crawford et al. also present a model that shows the Intrapersonal, Interpersonal, and Structural barriers to accessing leisure activities as a sequence. The sequence of the three constraint types is shown in Figure 6.

Intrapersonal constraints impact the individual's preferences, which are in turn influenced by interpersonal constraints (that are a result of another's intrapersonal constraints). Only if these constraints can be negotiated, will individuals be confronted by structural constraints (Crawford, Jackson, and Godbey 1991). This model implies a hierarchy for addressing constraints in outreach strategies and built environment for outdoor recreation facilities. It highlights the importance of addressing potential intrapersonal constraints which are understandably the most difficult to engage because of their personal nature. Then interpersonal constraints must be addressed, and finally structural barriers. Structural barriers appear to be the most straight forward for a land manager to address because they are rooted in the physical environment; they may not be the easiest, however, to implement.

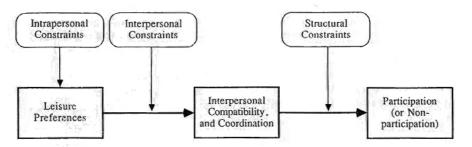## *Constraints as identified by Shores, Scott, and Floyd*

Figure 6- Crawford, Jackson, and Godbey's hierarchical constraint model showing the interaction of constraint types. This model implies an order in which constraints would ideally be addressed to reduce their impact. (1991).

Constraints as identified by Shores, Scott, and Floyd

In their article Constraints to Outdoor Recreation: A Multiple Hierarchy Stratification Perspective, Shores, Scott et al. (2007) concluded that the more marginalized groups an individual belongs to, the more constraints they will experience in accessing wildland recreation. Shores et al. identify young, wealthy, Caucasian men as the least constrained group. Thus a young, Caucasian, wealthy man would be impacted less by constraints than a young, wealthy, Caucasian woman. This woman would be less impacted than a young, wealthy, African-American woman who in turn is less constrained than an elderly, wealthy, African-American woman, and so on.

This study tested nine commonly cited constraints to see which groups were impacted the most. These constraints will be the framework for studying constraints as applied to the marketing, planning, and design of outdoor recreation facilities. The constraints identified are the following: lack of knowledge or awareness of facilities; lack of discretionary income; lack of transportation; lack of interest in activities available; poor

health or body image; disapproval of the activities of others that may be encountered at facilities; fear of discrimination or violence; lack of partner; lack of time. These constraints can be divided into Crawford, Jackson et al.'s constraint categories with the understanding that some may overlap into more than one category. The current study places them into categories in which they best fit.

Structural Constraints

Lack of Knowledge About/Awareness of Facilities- People in ethnic minority communities or those of lower socio-economic status may be negligently discriminated against in the process of disseminating information about, and marketing, available recreation facilities. An "if you build it, they will come" attitude does not appear to be effective in creating awareness of opportunities that are available to the whole public. Lack of knowledge about or awareness of facilities is extremely detrimental to increasing use as word of mouth may be the best marketing strategy for outdoor recreation facilities as suggested by Stein, Wan et al. (2009).

Lack of Discretionary Income- Lack of discretionary income is a constraint that will most likely be felt by marginalized groups according to age, race, and socio-economic status. It is likely that fees charged to use recreational facilities are a turn off, although fees are often quite nominal. Other costs that might act as a barrier for outdoor recreation participation include equipment and transportation. With oil costs continually increasing, financial reasons may be cited more often as a constraint, since access to outdoor recreation facilities is often automobile dependent.

Constraints as identified by Shores, Scott, and Floyd

* *

Lack of (Automobile) Transportation- A high level of automobile dependence tends to make outdoor recreation opportunities difficult to access for those without a car. This restricts accessibility for the very young and the elderly, as well as those of lower socio-economic status. Outdoor recreation opportunities often lie far from urban areas without safe corridors for bicycle transportation or public transit routes. As fuel prices continue to increase, visitation may decrease if alternative transportation options are not provided.

Intrapersonal Constraints

***Lack of Interest*-** Lack of interest may be a result of lack of previous exposure to an outdoor recreation experience or preference for other activities. It is an intrapersonal constraint, however, because it affects preference before participation can be pursued.

***Poor Health/Body Image*-** Poor health is a constraint that will be difficult to address as the potential facility user may have little or no control over accessibility for a variety of reasons. Other perceptions of self such as not being in good enough shape, or for many women, not having the right body type, may actually prevent a person who is physically capable of hiking, cycling, kayaking, climbing, etc., from choosing to do those activities. A person with this constraint may have disproportionate perceptions of the physical demands and aesthetic norms of an activity based on their self-image.

Disapproval of Activities Encountered- This constraint has to do with the perception and preconceived notions of potential activities that might take place in outdoor recreation sites. Upon a cursory glance this constraint might seem somewhat implausible, however, upon further thinking several examples of this perception come to mind. For instance,

a vegetarian may not want to encounter hunters or a certain site may gain a reputation for being a place where people come to have wild parties. The second instance ties into perceptions of the safety of the site and of personal safety.

Interpersonal Constraints

Fear of Violence or Discrimination- This barrier is particularly thorny to negotiate as it treads the line between perceived and actual danger. Racial or ethnic groups with historical association to violence or discrimination in particular landscapes may intrinsically feel a fear of those places. Likewise, women may carry associations of danger with isolated places. These fears are also often markers of negative first-hand or second-hand experiences of existing conditions as identified in Johnson, Bowker et al.'s article (1998).

Lack of Partner- Having an activity partner serves as motivation for recreation pursuits in general, providing momentum to pursue preferred activities. Partnership in recreation within wildland settings can help to negotiate fear of violence, especially for women. (Shores et al.) For families and spouses lack of a partner is an interpersonal constraint that is highly influenced by the intrapersonal constraints and preferences of friends and family, who may accompany a potential recreationist in their pursuits.

Lack of Time- Lack of time for leisure can often be attributed to work, social, or family commitments. The physical distance between facilities and potential users homes can be a contributing factor because time spent traveling to facilities may be used more productively. Paradoxically, Shores et al. found time constraints to be greatest among those in the most advantageous status characteristics.

Conclusions

Many frameworks have been used to identify, analyze, and categorize the issue of under-representation of ethnic/racial, gender, age, and socioeconomic groups in leisure activities, in general, and wildland recreation, in particular. Frameworks such as Ethnicity, Marginality, and Acculturation Theories all attempt to explain the preferences and behaviors of different peoples. None of these frameworks go past the identification of a phenomenon to make an attempt at shifting the existing conditions of under-representation of diverse user groups in the field of leisure studies.

A hierarchy is implicit in the literature described above, in our efforts to bring a more diverse group of users to trails. This hierarchy suggests that for users to access outdoor recreation we must:

1)   Spark an interest in potential activies
2)   Increase access to the resource
3)   Create a good experience on the site to encourage repeat visits and word of mouth advertising

Figure 7- A linear approach to attracting users to leisure activities. This model emphasizes marketing the resource as the first step in the process.

This is the order in which users will access the resource. However, as designers and managers, we must have the second two elements already prepared so users can actually use the site as soon as their interest is sparked. So ideally the diagram for implementation would look more like Figure 8.

Figure 8- To create a good experience in outdoor recreation, ideally facilities would be equipped and ready to handle visitors before they attempt to use facilities. Implmenting this model would emphasize creation of the resource before marketing it to the public.

However, this linear order is only an ideal that can be used for us to digest the process. In reality, recreation organizations may have several persons within the organization or other entities to collaborate with. And so the process may be more cyclical or, more likely, all three elements would be implemented simultaneously. So the process might look like Figure 9, where each objective is undertaken at the same time.
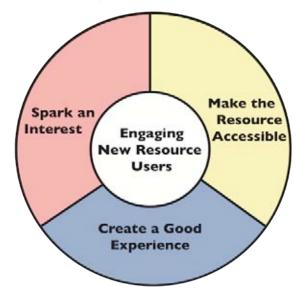

Figure 9- Because of collaboration and segmentation of resource responsibliity, all three pieces of the process will occur simultaneously.

Conclusions cont.

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Understanding the constraints that are faced in accessing leisure activities will be the most direct way to try to shift the current demographic of outdoor recreationists to one that more closely reflects the population of the places where facilities are located. Four overarching principals can be drawn from looking at the constraints above for the design of trailheads to serve the needs of diverse users:

1) Increase the visibility of the available resource in the area immediately surrounding a trailhead and in adjacent communities
2) Make accessing the site easy and not reliant on automobiles
3) Make the site feel safe and regularly managed
4) Make accommodations for groups using these sites (derived more from Ethnicity, Self-Construal, and Acculturation theories)

The next chapter uses a case study methodology that shows how the nine constraints identified above may be reinforced on three scales:

1) Planning Scale Design- how trailhead sites relate spatially to a potential user's home;
2) Site Scale Design- the design of the trailhead site itself;
3) Interpretive and Informational Signage- the information available to users at the trailhead sites.

CHAPTER 2:

CASE STUDY- EXISTING CONDTIONS OF SELECT FLORIDA NATIONAL SCENIC TRAIL TRAILHEADS

"Perhaps the rebuilding of the body and spirit is the greatest service derivable from our forests, for what worth are material things if we lose the character and quality of people that are the soul of America." ~Arthur Carhart

CHAPTER 2:
CASE STUDY: EXISTING CONDITIONS OF FLORIDA NATIONAL SCENIC TRAIL TRAILHEADS

Case Study Methodology

Two site visits were made to FNST trailheads, in December 2009 and March 2010. During the first visit, the goal was to gain an overview of the condition of the FNST's trailheads. General patterns of devleopment and maintainance were observed while visiting approximately 50 sites. The second visit evaluated five trailhead sites more closely, producing traditional site analysis as well as a qualitative assessment of the sites with concern to nine constraints described in the previous chapter. This chapter will provide an overview of the FNST, overall conditions of trailheads, and detailed descriptions of the five case study sites and their constraints analysis, and finally will conclude with lessons learned from these site visits. Those sites are Keystone, Rice Creek, Seven Runs, Pahokee, and Ft. Pickens.

About the Florida National Scenic Trail

History and Background

Traversing the diverse mosaic of landscapes that is the state of Florida, The Florida National Scenic Trail (FNST) offers users a wide variety of ecological and human systems to explore. When complete the FNST will stretch from the northern edge of the Everglades to the white sand beaches of the Western Panhandle, offering over 1,400 miles of continuous non-motorized paths for visitors to explore. Although several gaps remain in the trail today, volunteers have completed an impressive amount of work and the majority of the trail has been built and is available for visitors.

The first 75 miles of the Florida Trail was built in 1966 through the Ocala National Forest. The trail offered a unique opportunity for locals, as few long distance trails existed in Florida at the time. Also in 1966, the Florida Trail Association formed with the purpose of building a continuous recreational footpath that would connect people to wild, scenic, and historic places in Florida.
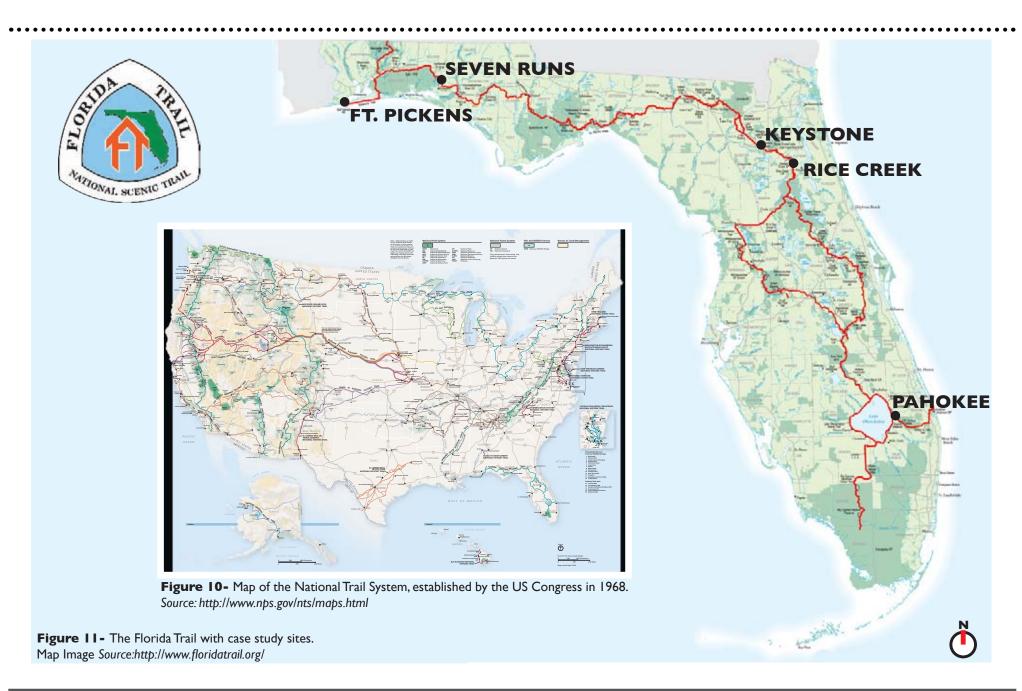
In 1983 the Florida Trail became part of the National Trails system. National Scenic Trails are established to provide "maximum outdoor recreation potential and for the conservation and enjoyment of the nationally significant scenic, historic, natural,

or cultural qualities of the areas though which such trails may pass." (US Congress 1968) This status allows for federal funding to build, maintain, and promote use of the trail as well as providing protection to established corridors of the trail. The variety of unique experiences that the Florida Trail offered was one of the primary reasons that it became part of the National Trails System.

In 1968 US Congress passed the National Trails System Act (NTSA), authorizing funding for the creation of two National Scenic Trails, the Appalachian National Scenic Trail and the Pacific Crest National Scenic Trail. This original legislation designated two types of trails, National Scenic Trails and National Recreation Trails. Focusing on nationally significant and regionally or locally significant trails, respectively, the NSTs and NRTs served as a way to "…promote the preservation of, public access to, travel within, and enjoyment and appreciation of the open-air, outdoor areas and historic resources of the Nation, trails should be established (i) primarily, near the urban areas of the Nation, and (ii) secondarily, within scenic areas and along historic travel routes of the Nation which are often more remotely located." (US Cong. 1968).

Today the system has grown from two to twelve National Scenic Trails, eighteen National Historic Trails, and over one thousand National Recreation Trails. All of these trails aim to serve the American public by providing recreational opportunities to surrounding communities.

The National Scenic Trail designation is reserved for trails greater than 100 miles in length that offer a continuous corridor through areas of outstanding scenic or recreational quality. A goal of the National Trail System in the next ten years is to increase the trails' social relevance. (Elkinton) To do this, the trails must reach to a more diverse group of users than those that have been served historically. The under-representation of socially diverse groups on the trails has been identified by professionals in the field of trail management and is exemplified by the patterns of use on the FNST.

The FNST Experience

Figure 10- Map of the National Trail System, established by the US Congress in 1968.
Source: http://www.nps.gov/nts/maps.html

Figure 11- The Florida Trail with case study sites.
Map Image *Source:http://www.floridatrail.org/*

The FNST Experience

Human Systems and Ecosystems Along the FNST

The FNST travels through diverse landscapes, providing users a mosaic of experience. Over the course of several months a thru-hiker or Floridian day user can travel through native ecosystems that include the following; long leaf and slash pine forests and woodlands, hardwood and palm hammocks, cypress swamps, salt marshes, freshwater riparian zones and limestone sink holes, savannahs, dense jungles, estuaries, and coastal beaches and dunes. These ecosystems house extraordinary biodiversity and offer opportunities for wildlife viewing (especially birding) and flora identification unique to Florida. The majority of the trail is located in these undeveloped or primitive areas. However, users consistently encounter systems resulting from human intervention on the native ecology.

These cultural resources are as significant as natural features to the trail user's experience and should be considered an asset to the trail user because they offer trail access points and prospect over landscapes that are unique to Florida. The Florida Trail travels through areas where humans have adapted the landscape for a variety of reasons. These opportunities include; former and current timber plantations, sugar cane plantations, historic homesteads, historic and current military installations, restoration projects, small towns, Indian reservations, suburban cities, the dike around Lake Okeechobee, and Civilian Conservation Corps campgrounds. Like the native ecosystems, these human systems are unique to Florida and provide an opportunity for a deepened understanding of the human history of the State.

The majority of the native ecosystems through which the trail travels are intimate experiences. That is to say, when one visits a trail like the Continental Divide National Scenic Trail the dramatic topography creates vast scenic views that inspire awe. On a trail, like the FNST, the sense of wonder comes from understanding the impressive diversity of the ecological and cultural resources the user is traveling through. The subtleness of topography in scenic areas creates a necessity for the Florida hiker to be more intellectually engaged. The diversity and wonder can be lost when the user does not understand that the elevation change of six inches has put them in a different ecosystem.

In contrast, the human systems the trail comes into contact with often create dramatic landscapes; examples of this include the unique views as users travel along sugar cane plantation canals and the locks and canals surrounding Lake Okeechobee. Because these human and ecological systems are so easily misunderstood or discounted, it is of critical importance that interpretation becomes a priority in the marketing and design of the trail experience.

It should be communicated by designers to their potential users that the human systems they encounter on the FNST come not as a result of humans trying to separate themselves from the native ecosystems. But rather human interventions are the result of humans making an earnest attempt to thrive within these habitats. Similarly, it would be incorrect for users to believe that any of the healthy ecosystems they encounter along the trail lack some impact from or connection with cultural systems. These sorts of stories, of human relationships within their habitat, will make for interpretive experiences that are as compelling to trail visitors as explanations of hydrological features and wildlife viewing opportunities along the Trail.

The FNST Experience

Current User Statistics

A University of Florida (UF) study estimates that FNST hosted 349,701 visits (Stein, Wan et al. 2009). In comparison to a population of over 18 million residents in the State, it seems that the Trail is not yet meeting its full potential as a service to the public. Further it has been shown that the FNST serves a narrow demographic segment of Floridians and inbound tourists.

Although the statistics are not presented in a completely parallel format, it is clear that users on the FNST are skewed away from the diversity of Floridians in the categories of age and ethnicity. The UF study finds that users age 60 and above are the largest age group on the trail at 35% (Stein, Wan et al. 2009). Contrasted with the 2008 U.S. Census, which shows that only 17.4% of Floridians are above age 65, it seems that this number is disproportionately high (Census Bureau 2009).

Additionally, the numbers of Latino, African-American, and Asian-American users on the FNST is also quite different from the demographic spread of Florida. In 2009 UF study users described themselves as the following races: 91.4% Caucasian, 0.9% African-American, 1% Asian-American, and 4.5% Latino/Hispanic (Stein, Wan et al. 2009). This is juxtaposed against the 2008 Census break down of the following; 79.8% Caucasian (60.3% non-Hispanic heritage), 15.9% African-American, 2.3% Asian-American, 21% Latino/Hispanic (Census Bureau 2009). The remaining percentages of trail users identified themselves as Native American and Hawaiian/Pacific Islander and statistically are well served by the Trail. However, the statistics show that currently a disproportionate number of Caucasians dominate user distribution, which does not reflect the racial and ethnic diversity of Floridians. For the future viability of the FNST, it is critical that we move past paradigms that claim that groups other than Caucassians do not "like" the outdoors. In reality, marketing, built infrastructure, and environmental education efforts are not targeting racially and ethnically diverse populations.

The purpose of understanding and communicating these concerns in this document are not to place judgment on those responsible for building and maintaining the FNST. Conversely, understanding who current users are and who are the underserved populations provides an exciting opportunity to enhance marketing, built infrastructure, and outreach programs on the Trail. By serving diverse populations, the FNST will become an asset to a larger number of users. The most effective way for a person to appreciate and ultimately respect and protect a natural resource is for him/her to experience it and take ownership of its care. Put in a more succinct way: to foster stewardship we must foster the experience that inspires love of the resource. Likewise, this gives the FNST the opportunity to be a leader in the National Trails System in fulfilling the mission of serving as wide a group of Americans as possible. This shift away from the demographic status quo is critical to the FNSTs social and economic sustainability.

Demographic Group	University of Florida Survey of FNST Users (2009)	Florida Population Statistics (Census Bureau 2009)
Senior Citizens	35.0%	17.4%
Non-Seniors	65.0%	82.6%
Caucasian	91.4%	60.3%
African-American	0.9%	15.9%
Asian-American	1.0%	2.3%
Latino/Hispanic	4.5%	21.0%

Table 1- Comparison of Florida National Scenic Trail visitor demographics compared to the overall population of Florida.

The FNST Experience-Scenery along the Trail

photo by Anya Dobrowolski

Buck Pond in the Northwest Panhandle

photo by Anya Dobrowolski

The Old Brick Highway near Pensacola

photo by Anya Dobrowolski

Juvenile long leaf pine

photo by Anya Dobrowolski

Sea Oats in Gulf Island National Seashore

photo by Anya Dobrowolski

The Aucilla River near Tallahassee

photo by Anya Dobrowolski

Sugar cane fields south of Lake Okeechobee

photo by Anya Dobrowolski

Cycling along the Herbert Hoover Dike

photo by Anya Dobrowolski

Sandhlll Cranes in rural areas

photo by Anya Dobrowolski

Swamps on the Seminole Reservation

The FNST Experience-Scenery along the Trail

photo by Anya Dobrowolski
Sunset at Billie Swamp Safari

photo by Anya Dobrowolski
Alligator at Big Cypress National Preserve

photo by Anya Dobrowolski
Hiking in the Aucilla Water Management Area

photo by Anya Dobrowolski
Spider webs at the Aucilla Sinks

photo by Anya Dobrowolski
Long leaf pine forest in Appalachicola National Forest.

photo by Anya Dobrowolski
Agricultural land near Keystone Trailhead

photo by Anya Dobrowolski
The Aucilla River

photo by Anya Dobrowolski
Historic building in White Springs

photo by Anya Dobrowolski
Historic hydraulicpumps at John Stretch Park

The FNST Experience

Overview of Existing Trailhead Conditions

Along the Trail there are many access points and trailheads where users leave the motorized world behind and begin their exploration of Florida. These locations are as diverse as the environments the trail passes through. Some occur in towns, at established social hubs and visitor's centers, at rest stops and waysides, along major road corridors, and on rural and forest roads. These trailheads are managed by many entities and agencies, both public and private, and are of vital importance as a launch point for new and returning users to the Trail. Trailheads will be an introduction to the Trail for those who come into casual or unintended contact with them. Because of the varied environments of the trailheads, a wide demographic of potential users can easily have unplanned or incidental contact with the Trail. This means trailhead infrastructure is a critical component of the FNSTs marketing strategy. For this reason, it is crucial to understand who potential users are, how current visitors use the Trail, and to plan the information and amenities at trailheads thoughtfully.

Currently most trailhead sites along the FNST lack cohesive development. In most cases, any site design work has been done by the land management agency where the access point exists. At some sites a visitor might find some informational signage about rules, regulations, and safety on the Trail. Fewer sites include a map of the Trail segment and fewer still have information about the FNST as an entity. Some trailheads in more developed areas might include restroom facilities but this is a rare occasion. Virtually none of the trailheads visited in this study currently offer interpretive information about the site or the segments of the Trail that would be accessed from the trailhead.

Informational and interpretive signage may have been designed and installed by either the site's land manager or by volunteers for the Florida Trail

Association. Because there have been no design guidelines or performance standards created for trailheads and their signage, these sites lack consistency of design or experiential qualities. Although each trailhead will have site-specific considerations that should be taken into account while being designed and built, there should be a connective tissue that creates an identity and provides continuity of feeling between the trailheads. A causal visitor to the Trail should easily be able to identify a FNST trailhead after having already visited another. A trailhead that provides inviting and appropriate facilities may inspire the casual visitor to return for future hikes or bike rides on the FNST.

Trailhead Typology

After the first visit to the FNST it became clear that categorizing the FNST's trailheads into a typology would create a useful tool that would help the land managers, volunteers, designers and others involved in the design and building of trailheads to determine the amount of development that would be appropriate for each site. Instead of relying on the Recreation Opportunity Spectrum[1] as the guiding priniciple, the FNST Trailhead Typology breaks the trailheads into categories based on the existing level of development, the relationship of the site to human communities and types of transportation access available, the types of recreation activities expected on the site, and the types of users that might be expected on the site. The five sites chosen for this study represent each of the types in the typology.

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(1) Developed in 1979, the Recreation Opportunity Spectrum provides guidance for USDA Forest Service recreation site development based on proximity to urban areas.

Florida National Scenic Trail Trailhead Types

Type	Location Description	Expected Users (casual and intentional)	Expected Activities	Examples
Recreational Hubs	Visitors attracted to another resource such as an historical site, a town or state visitor's center, or an educational facility primarily use these trailheads. Already existing built infrastructure on these sites, such as restrooms and water fountains, serve FNST users. These sites may occur in urban or non-urban settings. Access may be provided by bus, automobile, bicycle, or on foot.	Thru-hikers Backpackers Day-hikers Destination Tourists Cyclists	Hiking Picnicking Camping Cycling Resting/Napping	**Ft. Pickens** Oasis Rest Area Biophilia Center Stephen Foster Visitor's Center Billie Swamp Safari Forever Florida
Roadside Waysides	These sites are most often rest areas off of major thoroughfares. They may be located in an urban, suburban, or rural setting. Already existing built infrastructure on these sites, such as restrooms and water fountains, serve FNST users. They are often related to a significant view, historic site, or natural phenomenon accessible from the site. Access is probably bus, automobile, or bicycle.	Thru-hikers Backpackers Day-hikers Cyclists Car Travelers	Hiking Road Cycling Picnicking Resting/Napping Birding Strolling	Opal Beach Nokuse Restoration St. Mark's Levee Old Brick Road I-75 Rest Area John Stretch Park **Seven Runs**
Community Gateways	This type always occurs in towns and cities the trail passes through. They may be located at a chamber of commerce visitor's center, city park, library or other location that is accessible and friendly to the general public. Nearby businesses in the area, such as hotels, hostels, restaurants, and laundromats serve FNST users. Access might be by bicycle, car, bus, or foot.	Thru-hikers Backpackers Day-hikers Destination Tourists Cyclists Car Travelers Community Members	Hiking Road Cycling Picnicking Resting/Napping Strolling Shopping	Navarre Visitor's Ctr. White Springs Blountsville Main St. Crestview **Pahokee**
Semi-Primitive Trailheads	These sites often offer access to multiple recreation opportunities but are not located on land that managers have highly developed. Existing facilities may include benches, shade shelters, interpretive and informational signage, and restrooms/showers (at established campgrounds), However, they may not have any of these facilities. Access is probably by automobile or bicycle.	Thru-hikers Backpackers Day-hikers Cyclists Car Travelers Fishermen	Hiking Road Cycling Picnicking Resting/Napping Boating Birding Mountain Biking	Gulf Islands Nat. Seas. East River Boat Ramp Suwannee Music Camp Juniper Springs **Keystone**
Primitive Trailheads	These trailheads will receive the lowest levels of usage. Most users that come to these trailheads have made an intentional decision to find them and so casual contact with the Trail on these sites is rare. Roads accessing these sites are usually country, rural, or forest roads and are often, but not always, unpaved. Access is usually by car.	Thru-hikers Backpackers Day-hikers Fishermen Hunters	Hiking Birding Fishing Hunting Camping	Hutton Trailhead Buck Pond US 331 on Elgin Vilas @ Apalachicola NF Camel Lake @ Apalachicola NF Goose Pasture Rd. **Rice Creek**

Keystone Existing Conditions

Keystone Trailhead

Statewide Context

The Keystone Trailhead site will be located at the edge of Bradford and Clay Counties in Northeast Florida. The targeted area is approximately 32 miles north of the Rice Creek Trailhead traveling via the FNST. Like Rice Creek, it is nearly equidistant from the three termini at Loop Road, the Alabama State Line, and Gulf Islands National Seashore. The Keystone Trailhead access point is currently located directly on State Road 100 at an intersection with SE 75th Street on the western edge of the rural city of Keystone Heights.

Dozens of small lakes can be found in the area creating a remarkable signature on the land, making the area a potential magnet for recreational activity. The lake system is a result of sinking limestone beneath the surface layers of clay and sandy earth. The site is within the St. John's Water Management District, who works to maintain the water quality of the nearby system of lakes and creeks. The lakes have experienced lower water levels in recent years due to drought conditions.

Keystone Existing Conditions

Local Context

With the large cities of Jacksonville and Gainesville within thirty miles, the Keystone Trailhead has the potential to serve a large urban population in addition to the local population as the adjacent forest restoration areas mature and more recreational resources are developed. Hiking to the lakes and access to an emerging bicycle greenway (see below) would serve as the main attractors to the Keystone Trailhead. The population most likely to benefit from further development of the Keystone Trailhead is, however, the local rural population.

The trailhead, as mentioned above is on the edge of Keystone Heights, an incorporated town of 1,349 residents. Several smaller, unincorporated communities between Lake Butler and Palatka will be served by the addition of this trailhead as the Palatka-Lake Butler State Trail (PLBST) is implemented. The PLBST will be a 47-mile, paved multi-use trail that connects several communities between the cities of Palatka and Lake Butler. The Florida Office of Greenways and Trails manages the project. The addition of a Keystone Trailhead will allow PLBST users to access the Keystone area lakes without needing to use an automobile.

To the east of the SR 100 and SE 75th St. intersection the Trail travels through a privately stewarded restoration project, within the Keystone Airpark. Within seven miles of leaving the intersection eastbound hikers will walk along the edge of four lakes and then head into Goldhead Branch State Park. This section of the FNST is entirely on hiking paths until it links into the country road walks between the Goldhead Branch State Park and Etoniah Creek State Forest.

As the Trail travels northwest of the site, it traverses a 38.5-acre tract of land recently acquired by the Forest Service. The USFS tract is in the process of being restored to a healthy longleaf pine ecosystem. Volunteers completed the footpath through this tract in 2009. The trail then links in to the corridor designated for the PLBST. The PLBST passes through bucolic farmland, hardwood forests, and slash pine plantations as it follows the route of the extant Georgia and Southern Florida Railroad for over 10 miles. The trail crosses through the unincorporated towns of Hampton, Sampson, and New River on the PLBST as it makes its way towards the larger town of Lake Butler, approximately thirty miles from the Keystone Trailhead.

Much like the Rice Creek Trailhead site, the Keystone Trailhead is steeped in an area rich with recreational opportunities. Within a thirty-mile driving radius recreationists can access dozens of public lakes, eight areas reserved for conservation or restoration, and two state parks. These areas offer opportunities for hiking, mountain biking, road biking, swimming, boating, and equestrian riding. Extending the radius to 60 miles almost doubles the wildland recreation opportunities, including providing access to the St. John's River.

TRAIL COMMUNITY AT A GLANCE

County: Clay County, population 140,814
Median Per Capita Income: $20,868
Racial Demographics:
 Africa- American-7%
 Hispanic- 4%
 Caucasian- 87%
Economics Drivers: agriculture, silviculture, National Guard Training Center at Camp Blanding

Nearest Trailhead Town: Keystone Heights, pop. 1,349, 4 miles

Source: http://quickfacts.census.gov/qfd/states/12/12019.html

Keystone Existing Conditions- LOCAL CONTEXT MAP

KEYSTONE TRAILHEAD

b

FLORIDA NATIONAL SCENIC TRAIL

PALATKA - LAKE BUTLER STATE TRAIL

STATE ROAD 100

PROPOSED PLBST TRAILHEAD

Downtown Keystone Heights

PROPOSED PLBST TRAILHEAD

Aerial underlay source: Google Earth

© 2010 Google Image U.S. Geological Survey

Google ©2010

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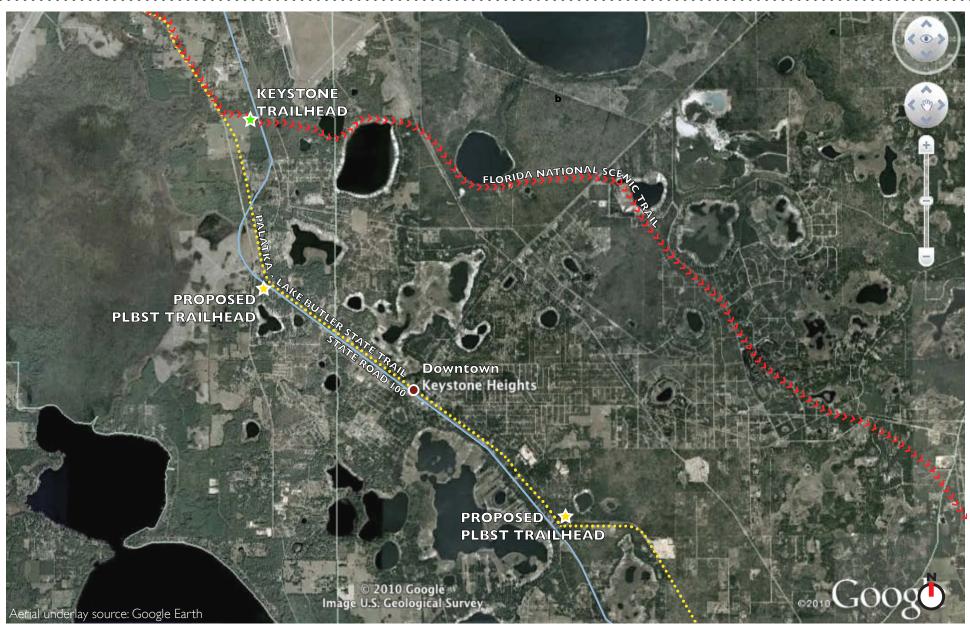
Figure 12- The FNST as it relates to Keystone Heights and Palatka Lake Butler State Trail. Currently, the FNST has no physical presence in Keystone Heights. The PLBST offers an opportunity for residents to connect to the FNST without need to use an automobile. PLBST trailheads are located on the edges of Keystone Heights as well.

Keystone Existing Conditions- LOCAL CONTEXT MAP

SE 81ST ST.

STATE ROAD 100

PALATKA - LAKE BUTLER STATE TRAIL

RANCHERS' HOME

USFS TRACT

FLORIDA NATIONAL SCENIC TRAIL

SE 75TH ST.

Aerial underlay source: Google Earth

Figure 13- The proposed area for the FNST trailhead outside of Keystone Heights. Travelling west through the newly aquired USFS tract leads hikers on to an extended stretch of Trail that coincides with the PLBST. The trailhead's relationship to a private landowner (the rancher) presents an opportunity for engagement but also the potential for conflict.

Keystone Existing Conditions

Site Conditions

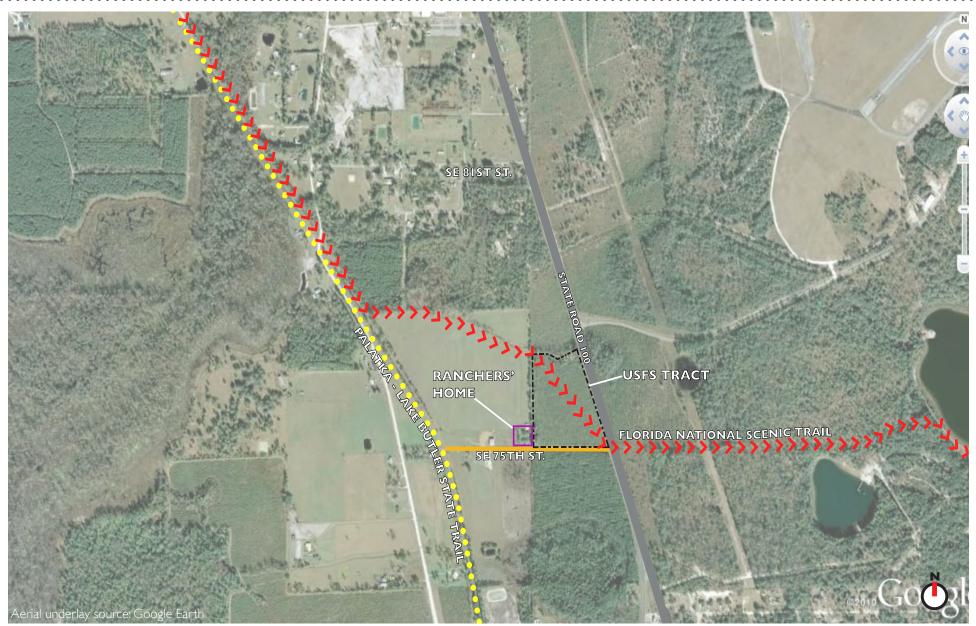The Keystone Trailhead's location at the corner of SR 100 and SE 75th St. is noteworthy because of the dramatic change in road type that happens at the intersection. Drivers turn off of a busy highway with a speed limit of 55 mph and onto a dirt rural road that has no posted speed limit, but the road feels slow. So although the site is adjacent to a town and a busy road, the quiet location feels like a backcountry facility.

Because this part of the Trail has just recently been built, trailhead facilities have not yet been developed for this site. Access to the FNST happens on either side of SR 100. On the west side of the road lies the Forest Service restoration site with the newly built section of trail. On the east side of SR 100, the Trail travels along a utility corridor between a restoration area and a slash pine plantation (eventually meeting the lakes mentioned above).

From SR 100 there is one small sign on either side of the road marking the FNST presence and signs along the boundaries mark the Forest Service property. There is no designated parking area for FNST users. Currently users may parallel park on the side of SE 75th, potentially obstructing traffic. To the west, a family-owned cattle ranch neighbors the Forest Service restoration area. Making sure that owners of the ranch are comfortable with the design and location of a trailhead facility will be critical as the ranch owners will be affected by development and visitation.

Currently, the Keystone Trailhead offers recreation opportunities solely to hikers, allowing users to avoid conflict with other types of trail users. However, in the future this site may serve FNST hikers and PLBST walkers and cyclists. The design of this trailhead should take that possibility into account and allow for the potential to accommodate future users. Because the Trail travels through young restoration projects on both sides of the road, users may have a high level of sun exposure as they hike the FNST. The area currently offers no amenities beyond the dirt road for parking, such as restrooms, informational kiosks, or seating.

To access the Trail through the USFS property, users must negotiate an unclear crossing adjacent to a drainage ditch and culvert at the corner of SR 100 and SE 75th St. Because of this unclear circulation, getting on the Trail could mean trail users climb down, then over the culvert from the dirt road. Although the FNST travels through many wetlands that users expect on their journey, the prospect of falling into the drainage ditch is not quite the experience that users are seeking in their hiking experience. Negotiating the culvert is tenuous at best, and falling into the grime of a highway drainage ditch is dangerous. The ditch itself is littered with garbage, as so many roadside swales are.

The sight lines from the Trail on the east and west sides of SR 100 are quite good and make it very obvious to hikers where their next steps should be directed. Accessing the FNST to the east side of SR 100 involves crossing the highway from the parking area, which is simple but risky. The signs posted at both access points are adequate for hikers moving at a walking pace although they do not aid in increasing FNST visibility to drivers on the highway.

photo by Deb Blick, Florida Trail Association

View towards current trail access point into USFS tract. from across State Road 100. The new section of trail was completed in 2009.
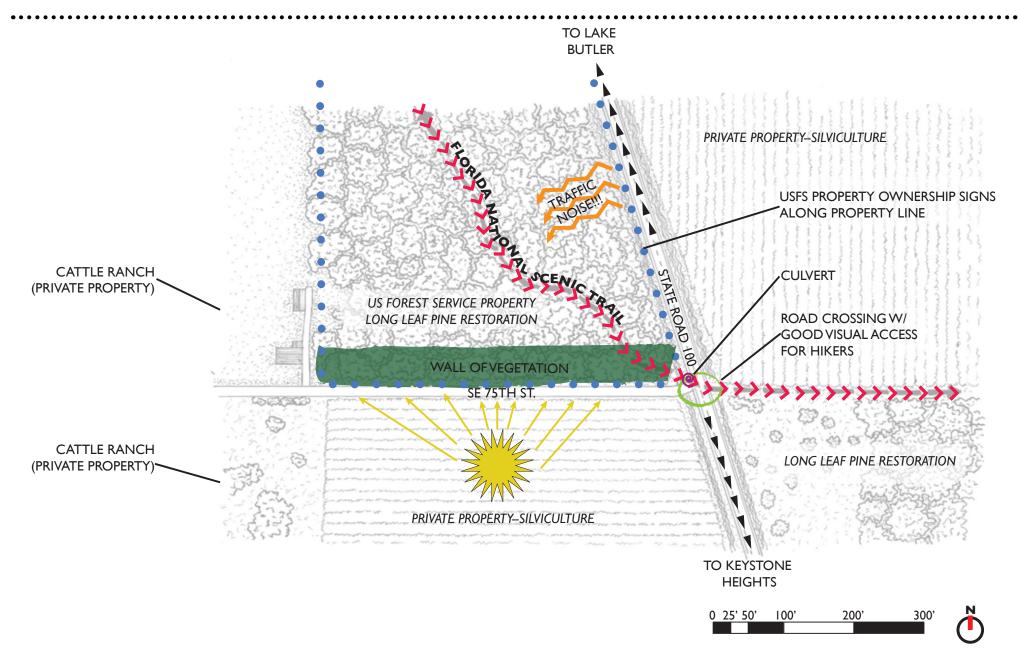
Keystone Existing Conditions- SITE CONDITIONS

Figure 14- Summary of existing physical conditions in the proposed Keystone Trailhead area. The site is currently undeveloped.

Keystone Existing Conditions

Constraints Analysis

The most constraining elements on this site are ditch/culvert negotiation and the SR 100 road crossing. Both of these elements touch on the health concerns/body image, lack of interest/exposure constraints. Because negotiating the culvert is so challenging, it makes accessing the trail difficult for the young, the elderly, and those who may have issues with balance. While negotiating obstacles is often part of a trail user's experience, elements such as this ditch and culvert are not to be expected by even the most seasoned outdoors person. Similarly, the crossing of SR 100, while necessary, is not marked safely and so it constrains those who may be carrying a heavy pack, the young, the elderly, family groups traveling with small children, and other people who are unable to ambulate at a fast pace.

However, this section of trail is excellent for families, the very young, the elderly, and novice hikers to use because the surrounding terrain is relatively flat and usually dry as it travels through upland areas. Since it winds through vernacular landscapes and common Florida ecosystems, it may be a comfortable introduction to hiking for novice trail users. An excellent opportunity already exists for users who want a short hike (less than 2 miles), as they can hike through the Forest Service tract, link into the PLBST corridor, and then walk back to a trailhead along scenic SE 75th St. while greeting the neighbor's cattle.

The cattle ranch to the west of the Forest Service tract has the potential to reinforce constraints or break them down based on the type of relationship that is formed with the landowners. A positive relationship with the neighbors will foster what Christopher Alexander would call "eyes on the (site)" (Alexander 1975). In this model the neighbors steward the site and also become part of the trail user's experience. Ranchers may share their knowledge about the land and their life as ranchers with trailhead users, helping users to feel more secure in leaving their belongings at the site and also in knowing that there is someone aware of their location. In a less desirable model, disapproval of activities is enhanced, as trailhead users feel hassled by neighbors who may feel that their privacy is encroached upon by the facility's existence and the increase in users.

As in most sites examined in this study, reliance on the automobile is emphasized by site location and a lack of alternative transportation facilities. However, because this site is so close to a populated area, this issue is not as severe as in sites such as Rice Creek and Seven Runs. Still, walking or cycling along the shoulder of SR 100 for any distance is not a viable option for the majority of potential users. As the PLBST is completed in the future it will be critical to provide a walking or cycling connection to this area and also to provide bicycle friendly design at the trailhead site. The short distance between this site and the heart of town helps to break down time constraints, and combined with the fact that there are no site fees, this section of the trail also aids people of all income levels to engage with the trail.

To help encourage more users, the FNST's presence needs to become more obvious. Currently there is no evidence of the Trail in Keystone Heights, nor are there any road signs that would alert users to FNST access and a pedestrian crossing at the intersection of SE 75th St. and SR 100. The only FNST signage in the area is currently focused towards people already using the Trail to direct them at the road crossing. This signage is obvious enough for people emerging from the Trail onto SR 100, but is nearly invisible to people traveling on SR 100.

As is seen at the Seven Runs Wayside and Rice Creek Trailhead, the lack of safety information and other informational signage leaves users without an understanding of who should be contacted in case of an emergency or concerns about safety in the area. The lack of facilities, which is prevalent at so many trailhead locations nationwide, does not provide users with a launch or landing pad for their adventure. For families with young children this may make the site more difficult, unattractive, or dangerous to use. This may reinforce a lack of interest in using the FNST because the facilities do not meet a family's basic safety and convenience needs.

Keystone Existing Conditions- CONSTRAINTS ANALYSIS

+ AREA CURRENTLY LACKS PARKING
  FACILITIES FOR AUTOMOBILES OR
  BICYCLES
+ACCESS POINT CURRENTLY LACKS
  ANY PLACE FOR TRAIL USERS TO
  GATHER/PREPARE BEFORE HIKING
  EXPERIENCE BEGINS

RELATIONSHIP WITH NEIGHBORS
MUST BE CAREFULLY STEWARDED
TO ENSURE FRIENDLINESS
TOWARDS TRAIL USERS

FLORIDA NATIONAL SCENIC TRAIL

TRAILHEAD MAY ONLY BE SAFELY
ACCESSED BY AUTOMOBILE--NO
PEDESTRIAN, BICYCLE, OR PUBLIC
TRANSIT OPPORTUNITIES EXIST

CULVERT MUST BE NEGOTIATED
AT ACCESS POINT--A DANGEROUS
AND AESTHETICALLY UNPLEASING
REQUIREMENT TO HIKE THE TRAIL

UNMARKED HIKER ROAD CROSSING IS
DANGEROUS AND PROHIBITIVE FOR
MANY POTENTIAL USERS
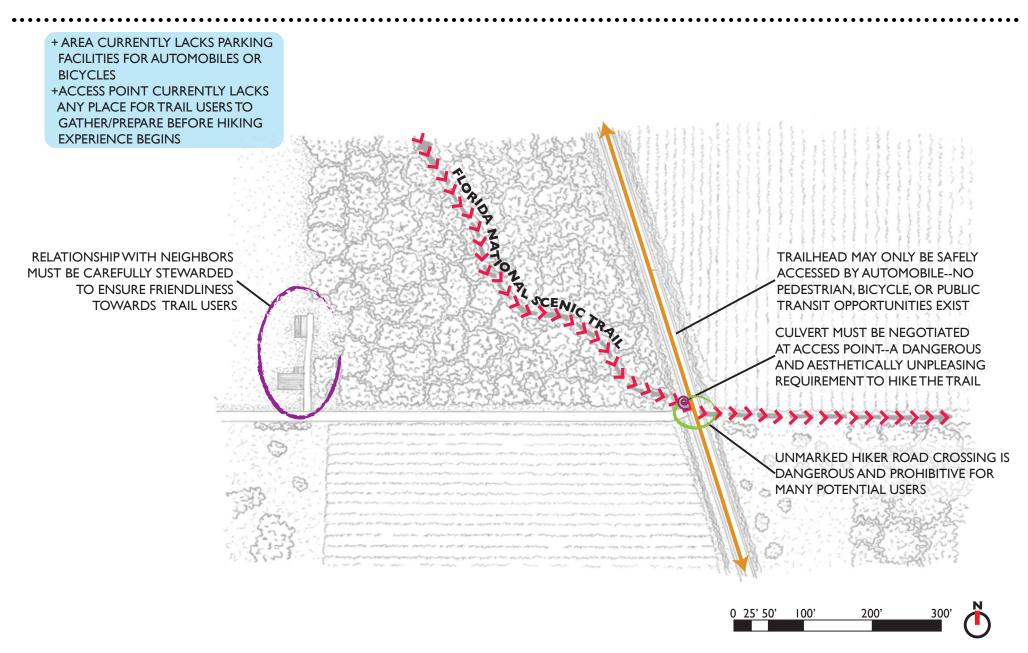
0 25' 50'   100'   200'   300'

N

Figure 15- Manifestations of leisure constraints in proposed Keystone Trailhead area. Major impediments include lack of non-automobile access from town, an unmarked road crossing, lack of FNST presence through signage and enagement in the local community, potential conflicts with neighbors, and lack of seating or informational signage.

Keystone Existing Conditions

photo by Deb Blick, Florida Trail Association

View of USFS tract from SE. 75th St. Currently the entire length of the property along 75th St. is a desnse wall of vegetation, a young long leaf pine restoration project.

photo by Deb Blick, Florida Trail Association

View towards current trail access point with State Road 100 beyond. Currently confusing circulation and difficult footing makes it difficult to access the Trail.

photo by Anya Dobrowolski

At the north end of the USFS tract is a flat, wide, pleasant section of Trail that travels through a hardwood forest before joining with the PLBST.
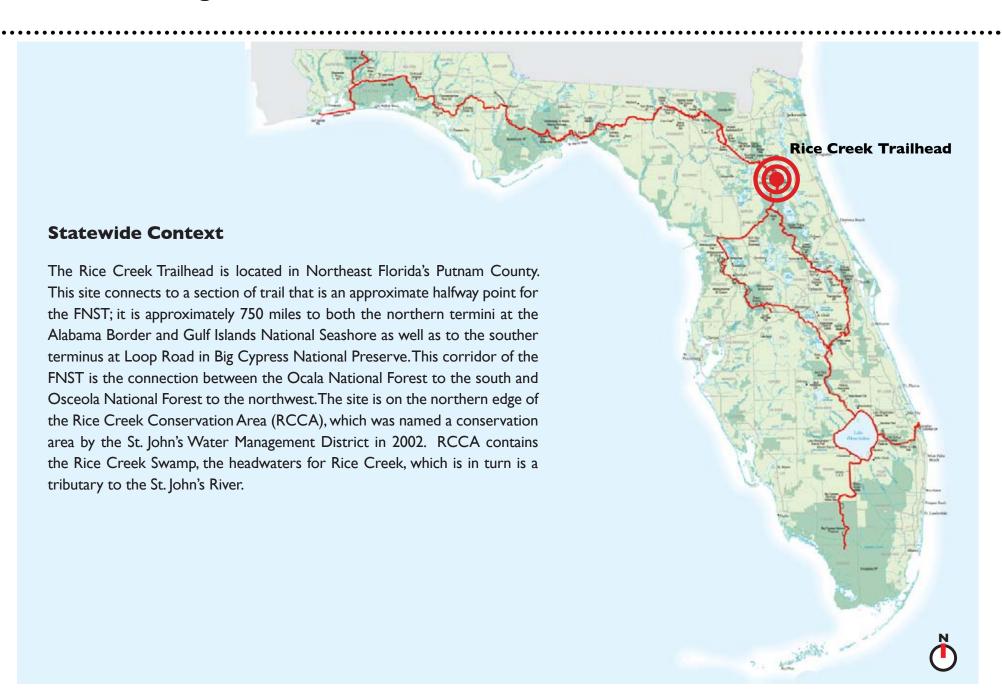

photo by Anya Dobrowolski

Confluence of the FNST and PLBST. This section of trail is intended to accomodate equestrians, bicyclists, and pedestrians.

Rice Creek Existing Conditions

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Rice Creek Trailhead

Statewide Context

The Rice Creek Trailhead is located in Northeast Florida's Putnam County. This site connects to a section of trail that is an approximate halfway point for the FNST; it is approximately 750 miles to both the northern termini at the Alabama Border and Gulf Islands National Seashore as well as to the souther terminus at Loop Road in Big Cypress National Preserve. This corridor of the FNST is the connection between the Ocala National Forest to the south and Osceola National Forest to the northwest. The site is on the northern edge of the Rice Creek Conservation Area (RCCA), which was named a conservation area by the St. John's Water Management District in 2002. RCCA contains the Rice Creek Swamp, the headwaters for Rice Creek, which is in turn is a tributary to the St. John's River.

Rice Creek Existing Conditions

Local Context

Putnam County is centrally located between several large cities including St. Augustine, Gainesville, Jacksonville, and Daytona Beach. The Rice Creek Trailhead site itself is within sixty driving miles of all of these medium-sized cities and only 6.5 miles to Palatka, the Putnam County Seat. Palatka is a small city with a population of 10,033. Additionally, several small, unincorporated towns are located between the site and Keystone Heights.

Timber harvest and processing companies are the major employers in Putnam County, and especially Palatka. The dominance of the timber industry makes clear-cut harvests and plantation grids ubiquitous views. The area is steeped in the forest as an economic driver, but also as a recreational amenity.

The RCCA is one of several forested conservation areas, preserves, and state forests in Putnam County. Beyond that, they create a network of patches and corridors for wildlife habitat and recreation. Putnam County also contains the northern tip of the Ocala National Forest, located within 30 miles of the Rice Creek Trailhead.

The Rice Creek Trailhead is the easiest access that day visitors have to the FNST through the Rice Creek Conservation Area. Hikers in RCCA, to the south of the site, will find themselves on many narrow bridges and boardwalks traversing across the Rice Creek Swamp. The land that is now the RCCA was historically used for indigo and rice farming, and later as commercial slash pine plantations. RCCA has a variety of natural communities, including swamps, lowland and upland forests.

As thru-hikers exit the RCCA to the north they face 4.5 miles of road walks, 3.4 miles of which are along busy State Road 100. Hikers will encounter bald cypress swamps, lush hardwood forests, and second and third growth long leaf pine forests as they move through conservation areas and state forests. While there are several road walks, the majority of the trail is on scenic rural roads.

TRAIL COMMUNITY AT A GLANCE

County: Putlnam County, population 70,423
Median Per Capita Income: $15,603
Racial Demographics:
 African-American-17%
 Hispanic- 6%
 Caucasian- 78%
Economics Drivers: silviculture

Nearest Trailhead Town: Palataka, pop. 10,033, 6.5 miles

source: http://quickfacts.census.gov/qfd/states/12/12107.html

source:http://www.sjrwmd.com/recreationguide/ricecreek/custom/060316_004.jpg

Bald cypress swamp in the Rice Creek Conservation Area

Rice Creek Existing Conditions- LOCAL CONTEXT MAP

Aerial underlay source: Google Earth

Figure 16- The FNST and its relationship to the PLBST and the city of Plataka. The PLBST offers a non-motorized access option to the FNST but because there is no FNST trail presence in the area, it will be dificult for residents to make this connection. The FNST trailhead shares the parking area with Plum Creek Timber, who is the property owner.

Rice Creek Existing Conditions

Site Conditions

Users currently enter the Rice Creek Trailhead site from Bolan Ramp Road, a roughly graded logging road, after turning off of State Road 100. State Road 100 is a two-lane highway with a 55 mph speed limit, and is a busy major connector for the region. It is currently undergoing many improvement projects funded by the federal stimulus package. Outside of towns, the road travels through timber harvest land and conservation land.

From SR 100 to the parking area, visitors drive about 50 yards. To the left of Bolan Ramp Road the area is clear-cut although a thin planting attempts to screen the view from the road; to the right a long leaf pine restoration project is in progress. Plum Creek Timber, a private timber harvest company owns the area between State Road 100 and the RCCA. The restoration project may be state-mandated to restore the quality of the viewshed or to increase habitat value in the area. It may also be an experimental sustainable harvest area. Swales filled with standing water and with some litter, run on both sides the entire length of the road.

At the parking area a visitor will hear birds singing and frogs croaking, so although the area is visually disturbed by the presence of logging activity, there is some habitat being provided. The parking area is disproportionately large for the small number of users the area currently serves. The parking area can easily accommodate 20 passenger cars. It may have been built this size to accommodate a logging truck's turning radius. There are no amenities on-site that require electricity or plumbing. The only other development on the site is a fence around the parking area's edge and an informational/interpretive kiosk.

The kiosk is oriented parallel to the road just past a gate that delineates the point where the public may not trespass. The kiosk panel facing the road tells the story of human use on the land that is now the RCCA along with a diagrammatic map

of the area. The panel is graphically pleasing, although it is text heavy, and the text is well written and at an easily legible font. The backside of the panel is inconspicuous and easily missed by visitors because it faces the drainage swale. The backside offers safety information, the same map as the front, and use regulations for the area. There is also a small brochure box that houses brochures about RCCA.

For recreationists, hiker-only trails, shared hiking/equestrian trails, and mountain bike trails are offered in this area. Without toilet facilities or running water, this site may not be of much use to thru-hikers except as a place to meet a resupply cache. Because there are no facilities for bicycles or public transit on or near the site, automobile transportation is the only type supported by the site. With federal dollars for road improvements and public transit, SR 100 may eventually accommodate these types of facilities. A redesign of this site should therefore plan to accommodate bicyclists as it may provide a resting point for road cyclists while also allowing potential trail users to access the FNST and the mountain bike trails from Palatka via bicycle. It is likely that a bus stop could eventually be located near this site because of its multi-use recreational draw.

From the parking area, hikers walk 0.7 miles along Bolan Ramp Road to a junction with the Florida National Scenic Trail and the entrance to the RCCA. At the junction, if users turn left they will hike through the RCCA, experiencing the lush swamp's dappled light and coming across a backcountry camping shelter less than three miles from the trailhead. To the right, users will soon cross busy State Road 100 and then follow the Palatka-Lake Butler State Trail to the northwest. The FNST presence on the site is quite weak. The only information about the FNST is on the map mentioned above. There is no explanation of what the FNST is and there are also no signs or blazing that indicate a connecting trail from the parking area to the trail junction. At a road junction before the trail junction signage indicates a split in use for the trail showing hikers and equestrians using one road and mountain bikers using another, but no indication of the FNST is present on those signs.

Rice Creek Existing Conditions- SITE CONDITIONS

TO KEYSTONE
HEIGHTS

CLEAR CUT

TRAFFIC
NOISE!!!

STATE ROAD 100

VEGETATED VISUAL BUFFER

PREDOMINANT WINDS

GATE

RICE CREEK
INFO. KIOSK

PARKING--
LOTS OF
POTHOLES

RESTORATION OR SUSTAINABLE
HARVEST AREA PROVIDES
BIRD HABITAT

SWALES PROVIDE
HABITAT FOR FROGS

TO FNST

BOALN RAMP ROAD-MANY POTHOLES

TO PALATKA

VEGETATED VISUAL BUFFER

PLUM CREEK
TIMBER SIGN

VIEW TO CLEAR
CUT AND SLASH PINE
HARVEST AREA BEYOND

CLEAR CUT

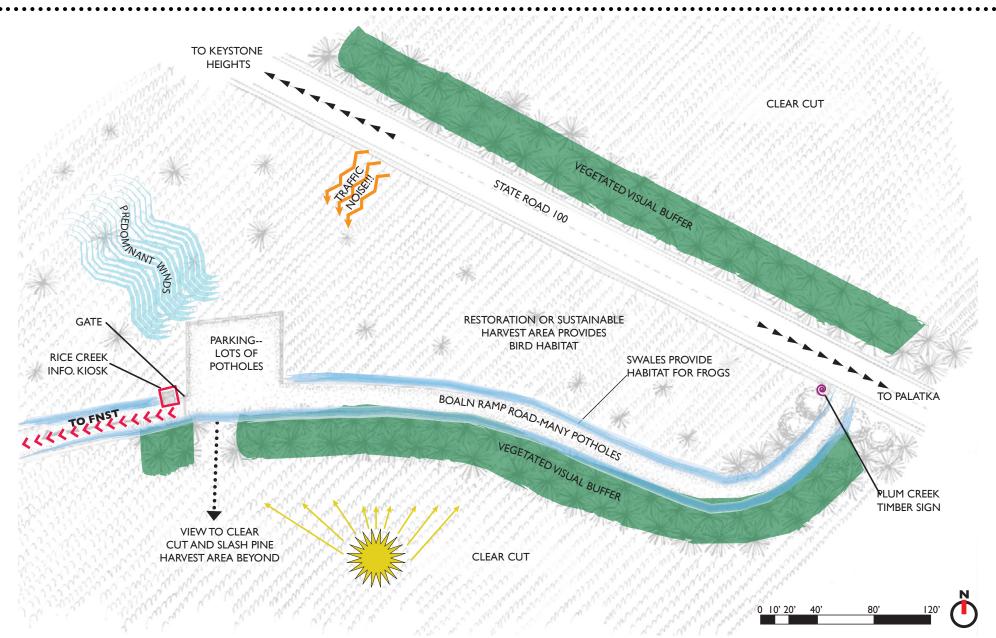0 10' 20'   40'   80'   120'

N

Figure 17- Existing physical site conditions at the Rice Creek Trailhead. Visual buffers screen the views of clearcuts for passing motorists. The road and parking lot are poorly maintained, and the openness of the site leaves visitors exposed to the elements. Surprisingly, swales on the sides of Bolan Ramp Road have created a swimming area for frogs.

Rice Creek Existing Conditions

Constraints Analysis

As with most other sites that are outside of an urbanized area, the Rice Creek Trailhead strongly reinforces automobile reliance. The site is 6 miles from the nearest community and the associated road is a highway with no bicycle, pedestrian, or public transit facilities. This reinforces the constraints of "lack of automobile access," "lack of time," and "lack of discretionary income." As on other sites studied in this project, the reliance on automobiles especially marginalizes children and often the elderly by forcing them to depend on others' free time to access the resource. Those of low socio-economic status are constrained by having to spend money on gasoline, in an era when gas prices are constantly rising. However, with visionary thinking and planning, non-automobile facilities, such as bike paths or bus service, can be realized in the next decade between Palatka and the Rice Creek Trailhead by utilizing corridors along SR 100 that are now dedicated to selective harvest techniques and viewshed protection.

From the perspective of a driver on SR 100, the site's existence is nearly invisible. One small sign is located at the junction of SR 100 and Bolan Ramp Road, identifying the Plum Creek Timber and the St. John's Water Management Districts as partners in managing the tract of land along Bolan Ramp Road. The sign is obstructed by a utility pole and does not identify the site's relationship with the FNST or RCCA. This contributes to a lack of awareness of the facility's existence. As in other trailside towns, little to no FNST presence is manifested.

Additionally, the kiosk on the site identifies the FNST on its front side only casually in the legend to the map mentioned above. The backside of the sign mentions the Florida Trail Association as the stewards of the trail in the RCCA, but the back of the sign is barely accessible because one must negotiate the swale to gain a full view of it. One interesting note on the sign's backside is the request for feedback via the St. John's Water Management District website. This is a timely and relevant way to communicate with trail users that is unfortunately hidden by the poor location of the information.

Like many other trailhead sites observed in this study, a lack of maintenance of the facilities reinforce fears of violence and discrimination and a fear of encountering undesirable activities. The inconspicuous nature of the site actually makes it more difficult to have what Christopher Alexander (1975) would call "eyes on the (site)." Because it is hidden and unidentified, there is less likely to be supervision of the site by local citizens and authorities, potentially making it a target for crime. On the hidden backside of the interpretive kiosk, user ethics and etiquette are discussed, and contact information is given for the St. John's Water Management District. However, no emergency contact information is provided and even if it were, it would most likely go unnoticed because of the panel's inaccessible location.

The driveway and parking lot's poorly maintained paving only serve to reinforce the feeling that this site is unsupervised and rarely maintained. Additionally, visitors arriving in low-riding automobiles risk damage to their cars because of the drive's poor condition. In 1975 Jay Appleton presented the theory of prospect and refuge, which states that humans feel most comfortable in places where they can either look over a landscape or hide within it, has been widely accepted in the environmental design fields. Paradoxically, the flat expansiveness of the site does not give users the feeling of either prospect or refuge. Instead, the site leaves users feeling exposed. No rain or sun protection is provided, and there is no wall for the user to lean against or hill to climb to observe the site. Without this sort of structure in the site's design, families are left to corral children (or others who need corralling) in a large open parking lot where they likely will have to negotiate moving automobiles and other users.

For many local users, the sight of a clear-cut timber harvest may be common and it may even be a view that has connotations for economic success and viability. This hypothesis would, of course, need to be tested with a visual preference study. However, for many other users, such as those who associate themselves with the environmental movement, walking through an area of clear-cut timber harvests may be jarring or upsetting. This type of view could easily be screened along Bolan Ramp Road or it could be used as an opportunity to interpret environmental and economic impacts of resource extraction and the types of products we use that cause the harvest, as well as the various techniques for timber harvest and their benefits and drawbacks.

Rice Creek Existing Conditions- CONSTRAINTS ANALYSIS

TRAILHEAD MAY ONLY BE SAFELY
ACCESSED BY AUTOMOBILE--NO
PEDESTRIAN, BICYCLE, OR PUBLIC
TRANSIT OPPORTUNITIES EXIST

OVERSIZED PARKING
AREA PROVIDES NO
PLACE FOR PROSPECT
AND REFUGE

SITE ID SITE DOES
NOT REFER TO FNST
AND IS OBSTRUCTED
BY UTILITY POLES
AND FOLIAGE

INTERPRETIVE/INFO SIGNAGE
HAS LITTLE FNST INFORMATION,
MOST OF WHICH IS DIFFICULT
TO ACCESS DUE TO POOR
KIOSK DESIGN AND LOCATION

LITTER STREWN ABOUT THE SITE MAKES IT FEEL UNMANAGED

POOR ROAD AND PARKING AREA MAINTENANCE MAKE ACCESS DIFFICULT AND CONTRIBUTE TO FEELING OF NEGLECT

TO FNST

SIGHT OF CLEARCUT IS AESTHETICALLY OBJECTIONABLE
BUT JUXTAPOSITION WTIH RESTORATION/SUSTAINABLE
HARVEST TECHNIQUES PROVIDES OPPORTUNITIES
FOR ON-SITE INTERPRETATION

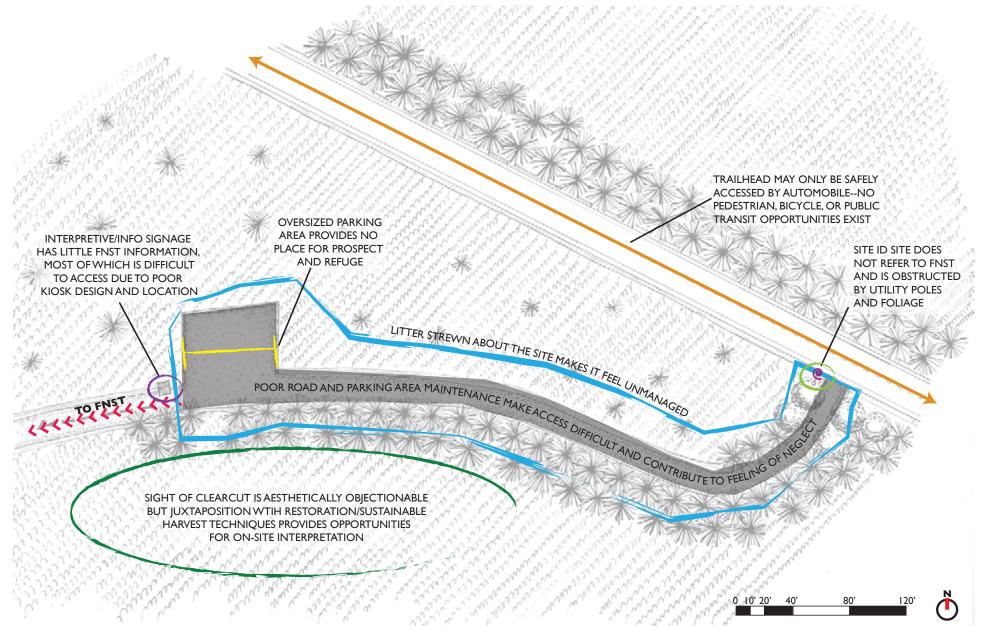0 10' 20'   40'   80'   120'

N

Figure 17- Existing physical site conditions at the Rice Creek Trailhead. Visual buffers screen the views of clearcuts for passing motorists. The road and parking lot are poorly maintained, and the openness of the site leaves visitors exposed to the elements. Surprisingly, swales on the sides of Bolan Ramp Road have created a swimming area for frogs.

Rice Creek Existing Conditions

photo by Anya Dobrowolski

Panoramic view of the Rice Creek Trailhead. The road and parking area are deeply rutted from heavy machinery and little maintenance. The space is very open and does not provide human scale enclosure. Currently, the site lacks an FNST presence aside from mention on the interpretive signage shown below.
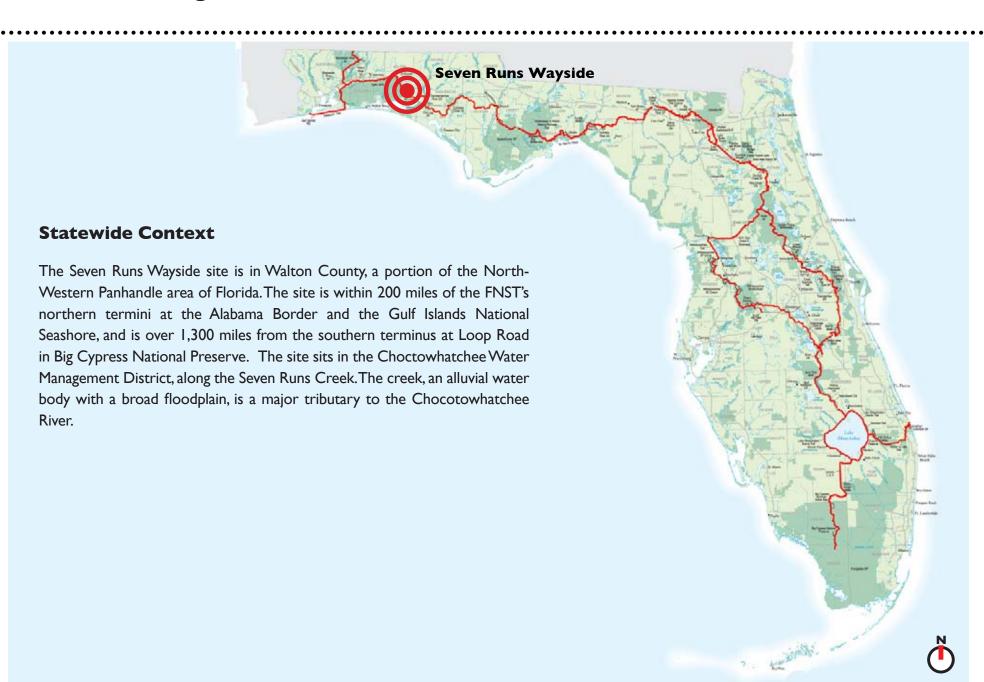

photo by Anya Dobrowolski

photo by Anya Dobrowolski

Further information about the FNST and local land managers is offered on the back side of the kiosk which can easily go unnoticed because users would have to stand in the swale to read it.

The RCCA interpretive sign relates the area's history as an indigo and rice plantation. A diagrammatic map show the FNSTs relationship to the site.

Seven Runs Existing Conditions

Seven Runs Wayside

Statewide Context

The Seven Runs Wayside site is in Walton County, a portion of the North-Western Panhandle area of Florida. The site is within 200 miles of the FNST's northern termini at the Alabama Border and the Gulf Islands National Seashore, and is over 1,300 miles from the southern terminus at Loop Road in Big Cypress National Preserve. The site sits in the Choctowhatchee Water Management District, along the Seven Runs Creek. The creek, an alluvial water body with a broad floodplain, is a major tributary to the Chocotowhatchee River.

Seven Runs Existing Condtions

Local Context

Walton County is a largely rural county in Northwestern Florida. The 2000 US Census showed a population of 40,601. The median per capita income was $18,198. Walton County's population is overwhelmingly Caucasian at 89% (U.S. Census Bureau 2010)

Upstream from the Seven Runs Wayside site, Seven Runs Creek flows through the Nokuse Plantation, a privately owned and managed 48,000-acre restoration project. The Nokuse Plantation restoration project concentrates on former agriculture and silviculture land on xeric highlands in an effort to restore them to a healthy longleaf pine ecosystem, with high reliance on fire management to improve habitat for the native gopher tortoise and black bear. Conservation groups are also targeting the area for focused water quality enhancements.

The FNST also makes its way through this rapidly regenerating landscape mosaic. The hiker and site visitor are, therefore, offered many opportunities to experience first-hand the past, present, and future of human interactions on the land. Hikers in this area experience riparian, lowland, and upland ecosystems. South of Seven Runs, thru-hikers have 10.5 miles of road walks along State Roads 81 and 20 that will be rerouted through forested lands in the future.

The Seven Runs Wayside provides an amenity for several small, unincorporated communities within 15 road miles of the site. It is also located only four miles from Redbay, a larger incorporated town in the area. Redbay is a low-density area with an estimated population of 3,768. However, it is one of the most densely populated areas of Walton County. Only three towns in Walton County are incorporated.

Conversations with longtime local residents at the popular Redbay Grocer, a store and restaurant, revealed that although the Seven Runs Wayside is often used for fishing, the residents had no awareness of the FNST's proximity to the site or even of its existence. The Redbay Grocery, the community's only social hub, has no FNST marketing materials on display, although several other recreational opportunities and businesses have a presence.

TRAIL COMMUNITY AT A GLANCE

County: Walton County, population 40,601
Median Per Capita Income: $18,198
Racial Demographics:
    African-American-8%
    Hispanic- 4%
    Caucasian- 89%

Nearest Trailhead Town: Redbay, pop. 3,768, 4 miles

source: http://quickfacts.census.gov/qfd/states/12/12131.html

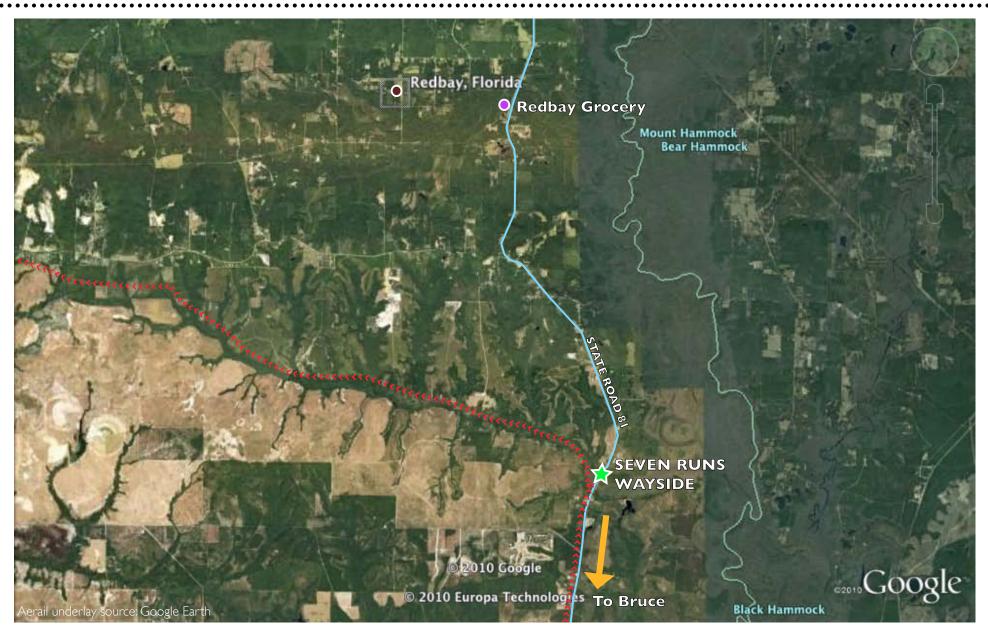# Seven Runs Existing Conditions- LOCAL CONTEXT MAP

Figure 18- The Seven Runs Trailhead is six miles along State Road 81 from either of the two closest communities, Bruce and Redbay. Redbay is the larger of the two communities. The FNST is yet to build its presence in the area surrounding this trailhead.

Seven Runs Existing Conditions

Site Conditions

The Seven Runs Wayside is located along State Road 81, a two-lane highway with a 55 mph speed limit. This rural road does not appear to suffer from any congestion, although use is constant, with a car passing the site at least once every two minutes. Users enter the site from State Road 81 on an asphalt driveway and park cars in a gravel and dirt parking area. There is a six-foot grade from the road down to the site. Directly in front and to the right when entering the site the land is forested, and to the left is a picnic area and the creek. The Florida National Scenic Trail emerges from the woods and onto State Road 81 fifty yards south of the site. To access the Trail from the site (and vice versa), users must cross the automobile bridge across the creek.

The current level of amenity development on-site is appropriate for the types and levels of use, as well as its relationship to populated areas. No plumbing or electricity exists on site. Amenities available on the site include: picnic tables and benches; a shelter covering several tables; a newly installed green plastic portable toilet; a FNST Kiosk with a box for brochures; a defined parking area; garbage cans; and a large road sign that is easily visible from the road; and a staircase that gives walk-in access to the creek from the grade. The road sign makes no mention of the FNST's relationship to the Seven Runs Wayside.

Traces observed on site indicate that it is used often. Beams overhead in the picnic shelter are graffitied with teenage declarations of love and even some poetry. Garbage cans on the site are used although not overflowing. However, garbage is found strewn about the site, indicating a low level of maintenance or supervision on the site, and perhaps a low level of respect for the site by users.

The site currently serves the adjacent communities with opportunities for swimming, fishing, and picnicking. Northbound FNST thru-hikers may find this site to be an oasis after walking along the road for 10+ miles, offering a chance for a refreshing dip in the creek and seat in the shade. Accessibility for local communities is limited to automobile transport, as no walking or bicycling trails are available nor are there local bus routes that run past the site.

As in many other communities throughout the United States, bicycling is finding increasing popularity in the Florida Panhandle, but the lack of bicycle facilities along State Road 81 makes the option of bicycling to the site prohibitive at best. State Road 81 is, however, a scenic corridor and with improvements geared towards bicyclists, it could become a popular recreational route. Therefore, this site should be considered one that will serve road cyclists in the future, the way it serves thru-hikers now.

Aside from the kiosk, the FNST has no presence on this site. No trail blazes lead potential hikers to and from the Trail. The FNSTs disconnect from the site makes the Trail's existence completely inconspicuous. Likewise at the entry to the Trail itself, hikers have no indication of the site's existence. At the time of site visits only one letter-sized flyer was pinned into the kiosk, making this look like an oversight. The brochure box was also empty. The Trail's entry is equally unceremonious. Looking towards the forest from State Road 81, users see a post with orange blazes, two small (6-inch) FNST logo signs, and one foot-traffic only sign. Twenty feet past, as the user enters the forest, a gate stands to discourage motorized use. This gate has the same signage as the previous post.

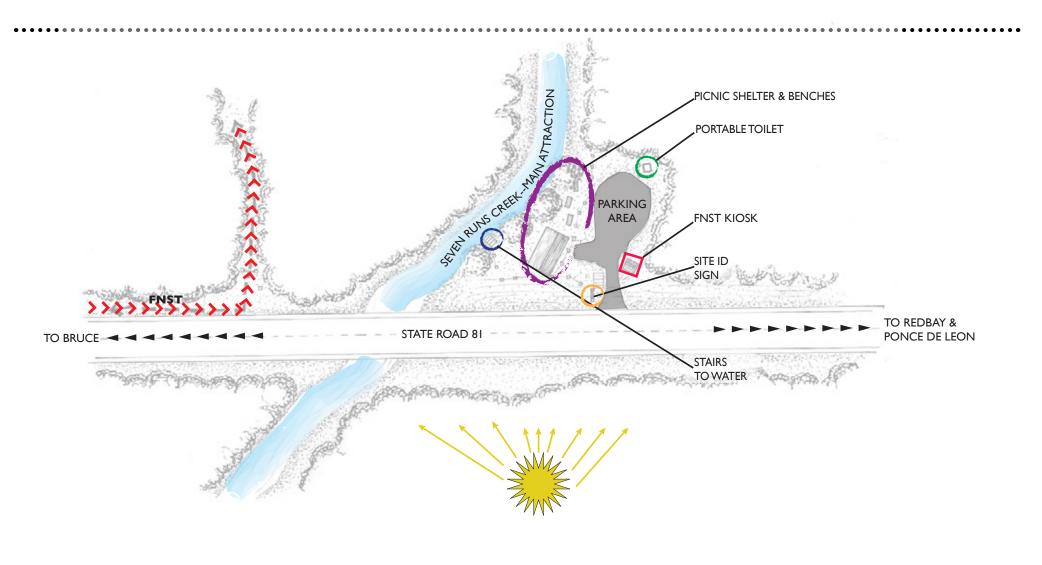## *Seven Runs Existing Conditions- SITE CONDITIONS*

Figure 19- Documentation of the existing conditions at the Seven Runs Trailhead. It should be noted that the FNST does not directly enter the trailhead site, forcing a walk on a highway bridge to access the Trail. A picnic shelter and benches provide a pleasant place to enjoy the creek while the FNSTs kiosk is located on the other side of the parking area from these amenities.

Seven Runs Existing Conditions

Constraints Analysis

At the planning scale, there is no indication of the Trail's existence or proximity in the town of Red Bay. This is not surprising in an impoverished rural community, as less affluent communities are often ignored in the marketing and outreach campaigns of recreation programs. Further, with the adjacent communities being low-density in the immediate area, it is surprising to see that the main community center in Red Bay (the Red Bay Grocery) has not been used as a place to advertise the FNST. Similarly, the Trail's presence is so inconspicuous on the Seven Runs Wayside site that it would be impossible for someone who may potentially be interested in exploring the forest to know that they have the option of using the FNST. The lack of blazing from the Seven Runs Wayside to the Trail, combined with the geographical barrier of the creek, and the automobile bridge that must be negotiated literally remove potential users from the resource. The FNST orange/blue blaze system is an icon that appears throughout the State; it's use on this site may inspire curiosity at the very least.

The site offers no safety, interpretive, or contact information. Users are uninformed about the opportunities and risks available on site, and they are uninformed about whom to contact in case of concerns or emergencies. Even today, when we have prolific access to technology, it should not be assumed that users will do background research before using a site. The FNST kiosk houses only one small flyer with information about a past event that is aimed at increasing Florida Trail Association membership--not at promoting use of the trail.

In general, the site appears unmanaged, as evidenced by litter strewn about and the graffiti. The emptiness of the kiosk gives the site an appearance of being neglected. These traces make the site look like a prime spot for an impromptu party. These factors will reinforce fears of violence and discrimination as well as the potential to encounter undesirable activities. The lack of oversight on the site may be uncomfortable to ethnic minorities and women, who in studies have cited an interest in having contact with officials such as land managers and park rangers (Johnson et al. 1998; Lopez et al. 2005). In contrast, the intent of the site's physical infrastructure promotes recreation of both small and large groups by having a gathering space underneath the canopy and also having the more intimate bench option. About 50% of the site is devoted to parking. The prioritization of parking space wastes valuable space for both vegetation and wildlife habitat and more recreation opportunities. Paradoxically, the addition of the portable toilet has the intention of allowing users to stay for longer, but the impermanent aesthetic and unpleasant experience of the portable toilet makes the site feel more transient or unstable. Tangentially, the maintenance of a portable toilet in this climate will be very unpleasant while other, more ecologically sustainable and lower maintenance options are now available, such as composting toilets.

The relatively short mileage between local populations and the Seven Runs Wayside site and its location on an easily accessible road combat "lack of time" as a constraint. However, the lack of non-motorized access to this site makes having automobile access a necessity. In the summer this may be an excellent site for local children to swim and hike for free, but they will not be able to access it without a driver, who would most likely be a parent, that is most likely employed during the day.

By offering a site that requires no fees, the Seven Runs Wayside combats the "lack of discretionary income" on the one hand. However, the requirement of automobile transportation is a limitation. The location along a major automobile route makes the current condition of the site inhospitable to bicyclists and pedestrians. The site itself offers no facilities, such as bike racks, to accommodate bicyclists' needs. It is feasible that a trail system could be created in the future that connects local communities to sites such as the Seven Runs Wayside. Another potential future condition that is not acknowledged in the current site design is accommodation of public transportation.

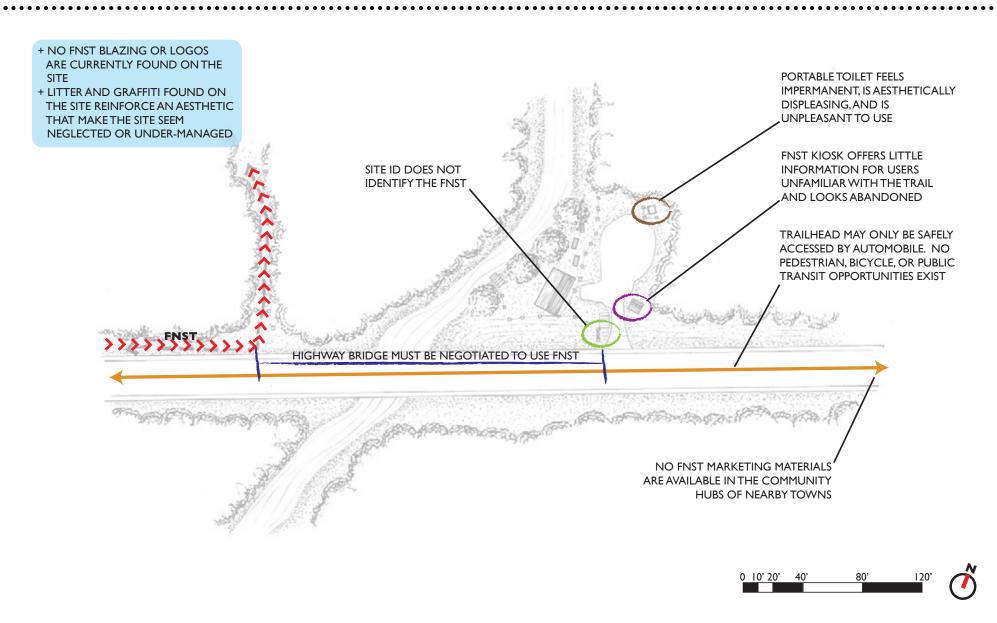# *Seven Runs Existing Conditions- CONSTRAINTS ANALYSIS*

+ NO FNST BLAZING OR LOGOS
  ARE CURRENTLY FOUND ON THE
  SITE
+ LITTER AND GRAFFITI FOUND ON
  THE SITE REINFORCE AN AESTHETIC
  THAT MAKE THE SITE SEEM
  NEGLECTED OR UNDER-MANAGED

PORTABLE TOILET FEELS
IMPERMANENT, IS AESTHETICALLY
DISPLEASING, AND IS
UNPLEASANT TO USE

FNST KIOSK OFFERS LITTLE
INFORMATION FOR USERS
UNFAMILIAR WITH THE TRAIL
AND LOOKS ABANDONED

SITE ID DOES NOT
IDENTIFY THE FNST

TRAILHEAD MAY ONLY BE SAFELY
ACCESSED BY AUTOMOBILE. NO
PEDESTRIAN, BICYCLE, OR PUBLIC
TRANSIT OPPORTUNITIES EXIST

FNST

HIGHWAY BRIDGE MUST BE NEGOTIATED TO USE FNST

NO FNST MARKETING MATERIALS
ARE AVAILABLE IN THE COMMUNITY
HUBS OF NEARBY TOWNS

0 10' 20'   40'   80'   120'   N

Figure 20- Analysis of outdoor recreation constraints on the Seven Runs Wayside site. Lack of Trail visibility, while ubiquitous on most sites is exacerbated on this site by the distance that must be traveled between the trailhead area and the actual Trail. Additionally, the lack of inforamtion in the FNST kiosk along with its location away from the many attractions on the site add to its camouflage.

Seven Runs Existing Conditions

Panoramic view of the Seven Runs Wayside. The site's main attraction is access to Seven Runs Creek for swimming and fishing. The site identification signage lacks FNST branding. Since this photograph was taken a portable toilet was brought to the site; the toilet's impermanence and bright color distract from the natural beauty of the site.

Crossing the highway bridge over Seven Runs creek to access the FNST from the Seven Runs Wayside site.

Entering the Trail from State Road 81. Signage is repetitive but very small, making it difficult to spot from the road.

Pahokee Existing Conditions

Statewide Context

The Pahokee Community Gateway, located in Palm Beach County, is on the eastern shore of Lake Okeechobee in central Florida. It is approximately 111 miles from the FNSTs southern terminus at Loop Road in the Big Cypress National Preserve and just under 1,400 miles from the northern termini at Ft. Pickens and the Alabama Border. Lake Okeechobee, a prairie lake, is the headwaters of the Everglades, itself fed by the Kissimmee River. The FNST circumnavigates the lake atop the 20-foot tall Herbert Hoover Dike built by the Army Corps of Engineers (completed in 1937) to control flooding in the surrounding communities and farms. This area is part of the South Florida Water Management District.

Pahokee Community Gateway

TRAIL COMMUNITY AT A GLANCE
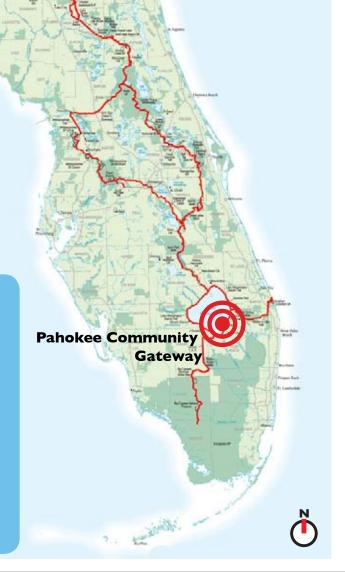
County: Palm Beach County, population 1,279,950
Nearest Trailhead Town: Pahokee pop. 5985
Pahokee Median Per Capita Income: $10,346
Major Economic Drivers: Agriculture, social services, education
Pahokee Racial Demographics:
　　　African American-56%
　　　Hispanic- 30%
　　　Caucasian- 25%

source: http://quickfacts.census.gov/qfd/states/12/12099.html
source: http://factfinder.census.gov/servlet/GCTTable?_bm=y&-geo_id=04000US12&-ds_name=DEC_2000_SF1_U&-_lang=en&-redoLog=false&-format=ST-7&-mt_name=DEC_2000_SF1_U_GCTP6_ST7&-CONTEXT=gct

N

Pahokee Existing Conditions

Local Context

Pahokee is a once-thriving, but now depressed agricultural community. The 2000 US Census showed a population of 5,985 within a county of 1,279,950, making Palm Beach County one of the largest populations in the state (US Census Bureau 2010) Because of the urban context of this site, this section will focus primarily on the city of Pahokee.

The closest large city is Palm Beach, 45 miles from downtown Pahokee. Other nearby communities include the small cities of Canal Point, South Bay, Belle Glade and Clewiston, all within 30 miles by car. The site is also accessible by bicycle or foot on the Herbert Hoover Dike's section of trail. Agribusiness and ornamental plant nurseries, made possible by the creation of the lake's levee, are the major industries in the area.

A driving and walking tour around Pahokee shows stark socio-economic disparity among Pahokee residents. An observer might see a manicured gated community across the street from occupied apartment buildings and small houses that are literally falling down. Homes that burned to the ground without visible plans for rebuilding or deconstruction are a common sight around town. The economic depression may have something to do with ecological restoration efforts in the Everglades to the south. An important part of that effort is the dissolution of sugar plantations in the area. Historically, sugar plantations were a major industry here; recently, ecological restoration in the Everglades has shut down the damaging plantations, leading to economic depression in the area. Other large-scale farming in the area may see the same fate in the near future.

The Pahokee Chamber of Commerce touts the community as a place where the population has not exploded and that has retained a serene character. The Chamber of Commerce website promotes Pahokee for its connection to Lake Okeechobee, displaying photographs of a private marina and recreational vehicle campground on the lake's shore (Commerce 2010). However, most residents of Pahokee do not live alongside the lake; the dike physically separates them from the lake and its wonders. To the east of the dike, buildings are decaying, and to the west of the dike a small tourist industry is staying afloat. Like many small towns with economies based in resource extraction or other direct land-use, Pahokee seems now to be hoping that tourism will be a major economic driver.

This section of the FNST stays atop the dike until the northern tip of Lake Okeechobee. To the east, hikers and cyclists view miles of sugar plantations, irrigation channels, and communities, while to the west they view the prairie lake with its many grassy islands. The lake is so large that from many vantage points it feels like the viewer is looking into the sea, with the far shores out of sight. Along the lake there are several tent-only campgrounds inside the dike, and tent and RV campgrounds in communities on the ring outside the dike. While most of the FNST is on the dike along the lake, at each of the locks, users must find their way around the lock area on the side of a highway.

Direct, safe access to the lake could certainly be a base for a segment of the area's economy. As far as a FNST hiker is concerned, Pahokee provides excellent services. The current access point for hikers is in the private marina mentioned previously. Although this more posh site is somewhat pleasant, it hardly serves the community as an access point because of the exclusive nature of the marina's design. Another site that could serve as a logical portal for FNST users and local residents is the newly rebuilt public library and adjacent city park.
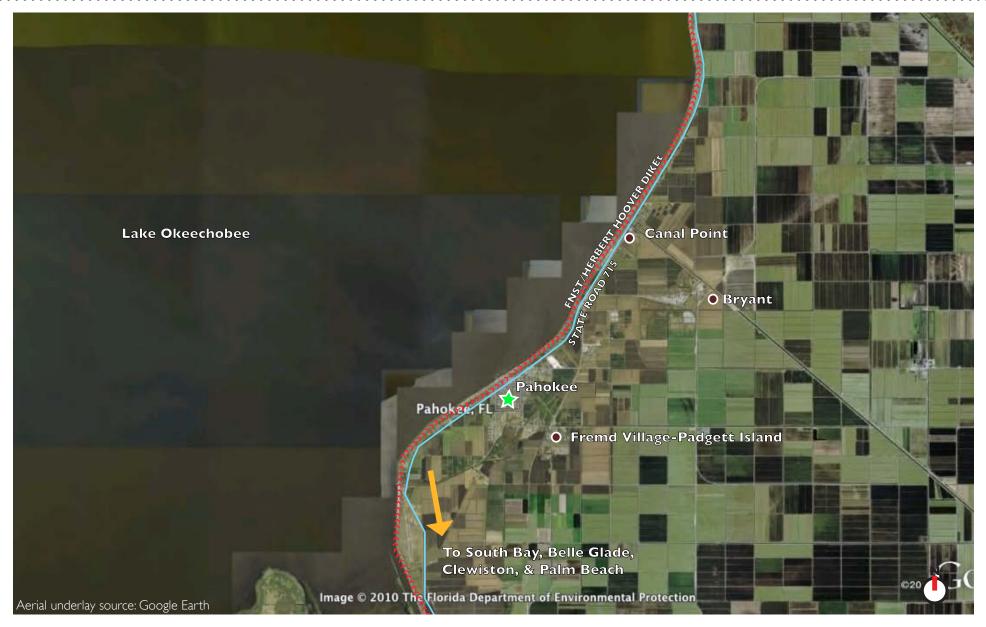
Pahokee Existing Conditions- REGIONAL CONTEXT MAP

Figure 21- The FNST runs along the edge of Lake Okeechobee atop the Herbert Hoover Dike. Pahokee is located on the eastern edge of the lake amidst agricultural lands. Traditionally sugar cane has been grown in this area but do to concerns over water quality associated with farming, farmers are transitioning to new crops.

Pahokee Existing Conditions- DOWNTOWN MAP

Figure 21- Downtown Pahokee includes a struggling commercial district pressed between residential neighborhoods and the Herbert Hoover Dike. The original plan for the FNST trailhead in Pahokee locates it at a privately owned and managed marina which bypasses downtown completely. By locating the trailhed at the Public Library, thru-hikers could easily access services for resupplies and the community would be served by providing a public access point to the Trail.

Pahokee Existing Conditions

photo by Anya Dobrowolski

Garden with seating area set upon the berm, above the Pahokee Fire Department

photo by Anya Dobrowolski

Downtown Pahokee has a historical character alive in its architecture. The Chamber of Commerce hopes to create prosperity through tourism income.

photo by Anya Dobrowolski

Entry to the private marina that is a proposed trailhead site for the FNST from downtown.

photo by Anya Dobrowolski

The steep grade of the hill and formal planting of palm trees emphasize the separation the dike creates between Pahokee residents and Lake Okeechobee.

Pahokee Existing Conditions

View to the marina from atop the Herbert Hoover Dike.

View of marina docks, private clubhouse/guest services building and portable toilet.

Private residents in the neighborhood along the dike have constructed bridges accross the swale to create direct connections to the water.

For a thru-hiker, this is the Trail experience for approximately 40 miles. Adding variety to the hike by routing the Trail through town may be a welcome option.

Pahokee Existing Conditions

Site Conditions

The proposed Pahokee Community Gateway site is located adjacent to the Loula V. York Branch of the Palm Beach Public Library System. The library itself is located directly on State Highway 715, which runs through downtown Pahokee. In town, the SH 715 has a speed limit of 25 MPH. Between the library building and the Herbert Hoover Dike is a small, unnamed city park. On the west side of the park is the city's police station and to the east are private residences. On the park's north edge, a linear swale creates a barrier to accessing the dike and ultimately Lake Okeechobee. The swale is littered with garbage and show evidence of eutrophication.

Two site visits, in December and March, gave an overall feeling of neglect and abandonment that starkly contrasts the library that was just recently rebuilt for the community. Although the site has many amenities, it lacks any that directly serve as an extension of the library building. There are no spaces that are usable as gathering places or outdoor classrooms, and despite evidence of an interest in bicycling around town, there are no bicycle racks. As is often the case with underutilized public spaces, this site has been profusely littered upon. Librarians say that the park is used consistently through the summer because of play fountains popular to area youth.

Despite the lack of design thinking evident on the site, it has tremendous potential to serve the community, library, and FNST throughout the seasons. The library serves as a sound buffer between the adjacent SH 715 and the park, leaving the site quiet and calm. The amenities that currently exist on-site include tennis courts; swings and jungle gym equipment; and the above-mentioned fountain in the center of the site with adjacent pumps and mechanical equipment. Some mature trees on the site's west side shade the swings. A well-designed and wonderfully informative sign sits near the bus stop on SH 715 offering interpretation of Pahokee's history and current events.

Access to the site is easy by multiple modes of transportation. Librarians have observed that most children travel to the site by foot. With low amounts of traffic in town, it is generally easy to circulate by foot and bicycle. On both visits to Pahokee for this study, several residents were observed riding around town on bicycles. However, the site currently does not offer any facilities for bicycles and there are no bike lanes on SH 715. Pedestrians and bicyclists must use caution crossing SH 715, as there is no crosswalk or stop light in the site's vicinity. A bus stop is located on SH 715 outside of the library, whose route connects to downtown Pahokee and the cities of Canal Point, South Bay, and Belle Glade. An automobile has simple and direct access to the site and a small parking lot provides spaces for ten vehicles.

In its current condition, there is no safe way to connect to the dike from the site as the polluted swale stands in between them. However, if this were remedied, the library site would provide users of the dike with shade and a windbreak from the exposed conditions atop the dike. For FNST thru-hikers and backpackers, the site is a portal to town, offering hikers the opportunity to use the internet and telephones in the library, and easy access to the post office, grocery store and restaurants, and other urban amenities that are helpful and pleasant for resupplying.

The FNST's visibility in town is very low. Currently, the only presence the FNST has in the city is two "FNST Gateway Community" signs posted at the entries to town along SH 715. Pahokee is part of the Florida Trail Association's "Gateway Communities" program, where the FTA and the city create a partnership geared towards mutual promotion of resources. In spite of this, no blazes guide trail users through town. Even in the marina, which was originally conceived of as the trailhead site; no kiosks, signage, or blazing exists. In this way, the city of Pahokee is somewhat a blank slate in terms of choosing a site for the community gateway. There is little concern to be made over moving the access point, as one is yet to be established.

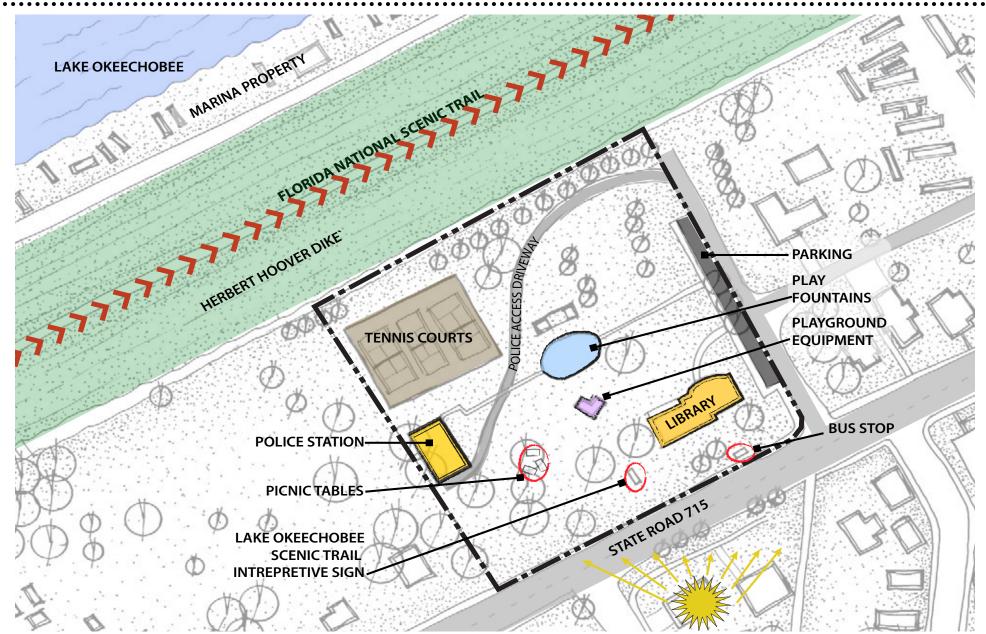## Pahokee Existing Conditions- SITE CONDITIONS

Figure 22- Existing conditions and amenities at this study's proposed Library Trailhead site. Amenities for hikers on the site include access to library facilities with restrooms, police station, picnic tables, and fountains (on hot days). The site lacks any organized seating area that the library could use for events.

Pahokee Existing Conditions

View down State Road 715 with bus stop in front of library. Note the Lake Okeechobee Scenic Trail interpretive signage in the distance.

A lovely interpretive sign has been installed to teach residents and visitors about the Lake Okeechobee Scenic trail, which the FNST coincides with.

The library entry is oriented away from the road and towards the park, implying a desire from the deisgners for a strong connection with the outdoor space.

View of the libary site from the top of the Herbert Hoover Dike. In the mid-ground, note the drainage ditch the creates a disconnect between the Dike and the libary site.

Pahokee Existing Conditions

photo by Anya Dobrowolski

Panoramic view of the library park looking towards the dike. The large lawn is currently under-utilized space and few opportunities for creative play are offered on the site. On both visits the park was empty despite the fact that visits took place during non-school hours.

photo by Anya Dobrowolski

Large trees provide much needed shade in the southern half of the park.

photo by Anya Dobrowolski

Palm trees line the edge of the littered and polluted drainage canal between the library site and the lake. Efforts to clean up the swale should accompany the development of a trailhead on the library site.

Pahokee Existing Conditions

Constraints Analysis

The Pahokee Community Gateway's urban location makes it the least structurally constrained site considered in this study. Alternative transportation options to the library site are abundant, with its relatively bikeable and walkable location, along with a bus stop on-site. The addition of bicycle racks would make the site even more accessible. In addition, the urban location breaks down financial and time barriers, by allowing users to enjoy the Trail for free without having to pay for gasoline, travel far from home, or find a ride to their recreation destination.

Awareness is the major structural issue in Pahokee, as it is in most towns and cities adjacent to the FNST. The focus of trail stewards has been building the trail itself, and with a blank slate for trailhead design, the opportunity is available to bring awareness to trailside towns thoughtfully from the beginning of the trailhead design process. Lack of awareness and interest may have the same root cause—a lack of exposure to facilities and opportunities. The FNST has no blazing to lead hikers to town or Pahokee residents to the Trail. Likewise, aside from the Gateway Community program signage mentioned above, no informational signage or interpretive signage is offered about or by the FNST in town. Curiosity could be inspired and fulfilled by visual cues that connect the lives of Pahokee residents to this resource available in their community.

Another cause of lack of interest in Pahokee residents might be the current location in a private marina. Even if there were signage in the marina, the question remaining is whether residents of Pahokee, who are not explicitly invited to use this private facility, would even come into contact, or want to come into contact, with facilities on a site that does not belong to the them, such as the marina. The marina has been built for an anticipated in-flow of tourists, not for locals. Using this site furthers social stratification paradigms about outdoor recreation as leisure activity. It makes trail access truly available for only a small group of users who feel that they belong in the marina. For this reason, the library site is more desirable. The conversion of an underutilized public park to a place that serves multiple users throughout the four seasons can be a collaborative effort between FNST partners and the residents of Pahokee, allowing locals to take ownership over the site and to become its steward, keeping the site clean and attractive to other potential users.
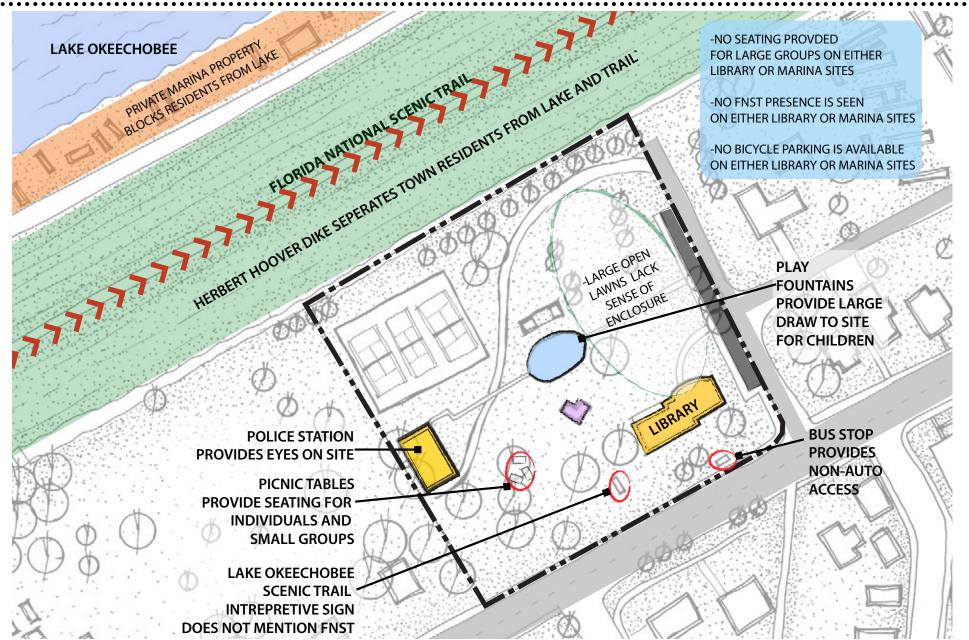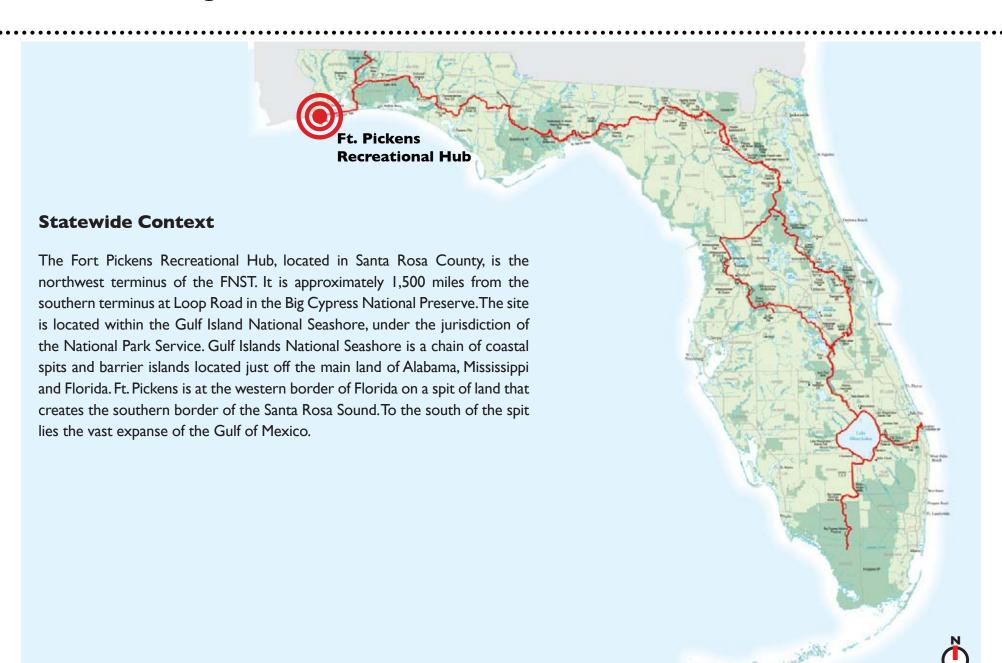
Pahokee Existing Conditions- CONSTRAINTS ANALYSIS

LAKE OKEECHOBEE

PRIVATE MARINA PROPERTY BLOCKS RESIDENTS FROM LAKE

FLORIDA NATIONAL SCENIC TRAIL

HERBERT HOOVER DIKE SEPERATES TOWN RESIDENTS FROM LAKE AND TRAIL

-NO SEATING PROVDED FOR LARGE GROUPS ON EITHER LIBRARY OR MARINA SITES

-NO FNST PRESENCE IS SEEN ON EITHER LIBRARY OR MARINA SITES

-NO BICYCLE PARKING IS AVAILABLE ON EITHER LIBRARY OR MARINA SITES

-LARGE OPEN LAWNS LACK SENSE OF ENCLOSURE

PLAY FOUNTAINS PROVIDE LARGE DRAW TO SITE FOR CHILDREN

LIBRARY

POLICE STATION PROVIDES EYES ON SITE

PICNIC TABLES PROVIDE SEATING FOR INDIVIDUALS AND SMALL GROUPS

LAKE OKEECHOBEE SCENIC TRAIL INTREPRETIVE SIGN DOES NOT MENTION FNST

BUS STOP PROVIDES NON-AUTO ACCESS

Figure 23- Although the library site is superior to the marina site because of its relevance to the local community, some constraints do exist. These constraint manifestations include a lack of FNST presence on the site, a lack of bicycle parking, and a lack of seating for large groups.

Ft. Pickens Existing Conditions

Ft. Pickens
Recreational Hub

Statewide Context

The Fort Pickens Recreational Hub, located in Santa Rosa County, is the northwest terminus of the FNST. It is approximately 1,500 miles from the southern terminus at Loop Road in the Big Cypress National Preserve. The site is located within the Gulf Island National Seashore, under the jurisdiction of the National Park Service. Gulf Islands National Seashore is a chain of coastal spits and barrier islands located just off the main land of Alabama, Mississippi and Florida. Ft. Pickens is at the western border of Florida on a spit of land that creates the southern border of the Santa Rosa Sound. To the south of the spit lies the vast expanse of the Gulf of Mexico.

Ft. Pickens Existing Conditions

Local Context

The closest town to Ft. Pickens is Pensacola Beach, an unincorporated community that is comprised mostly of hotels and vacation homes. However, Ft. Pickens serves the many small, unincorporated communities such as Navarre and Navarre Beach, and larger communities such as Warrington and Pensacola all within 30 miles (as the crow flies). Pensacola is the county seat of neighboring Escambia County with a population of over 55,000. Pensacola is a seaport and also houses a large naval base, which is a major employer in the area.

The Gulf Islands National Seashore has been a largely undisturbed, healthy, and scenic area of coastal barrier islands. Recently ecosystem health has been threatened by the explosion of the Deepwater Horizon Oil Rig, which will require clean-up efforts for an indefinite period of time. Additionally, because of sea level rise, there is great concern that roads currently used to access the site will, in the near future, be submerged and therefore unusable. The National Park Service is currently working on a plan to create a ferry between the City of Pensacola and Ft. Pickens that has the potential to bring more locals residents to the site. The spit of land that Ft. Pickens and Gulf Breeze sit on is friendly to cyclists, offering slow roads and off-road trails.

Between Ft. Pickens and the town of Navarre, the FNST travels through 30 miles of coastal scrubs, dune systems, white sand beaches, maritime hammocks, urban bike paths and sidewalks, and over a automobile/pedestrian bridge that straddles the Santa Rosa Sound. This context makes for easy resupplies and hot meals for thru-hikers. The Ft. Pickens site itself offers historical interest and beautiful scenery unique to this section of the Trail, making it a fantastic location to start or end one's journey on the FNST. It is an excellent location for the Trail's terminus as it offers easy access in and out of the site, and for the scenic and historical contexts.

TRAIL COMMUNITY AT A GLANCE

County: Escambia County, population 303,343
Major Trailhead Town: Pensacola, pop. 55,000, 18 miles
Median Per Capita Income: $21,438
Racial Demographics:
    African-American-31%
    Hispanic- 2%
    Caucasian- 65%
Major Economic Driver: Pensacola Naval Base

Sources: http://quickfacts.census.gov/qfd/states/12/12033.html
Sources: http://quickfacts.census.gov/qfd/states/12/1255925.html

photo by Anya Dobrowolski

View of Pensacola Beach and dunes near Gulf Islands National Seashore. The ocean front of Pensacola Beach is dominated by resort development.

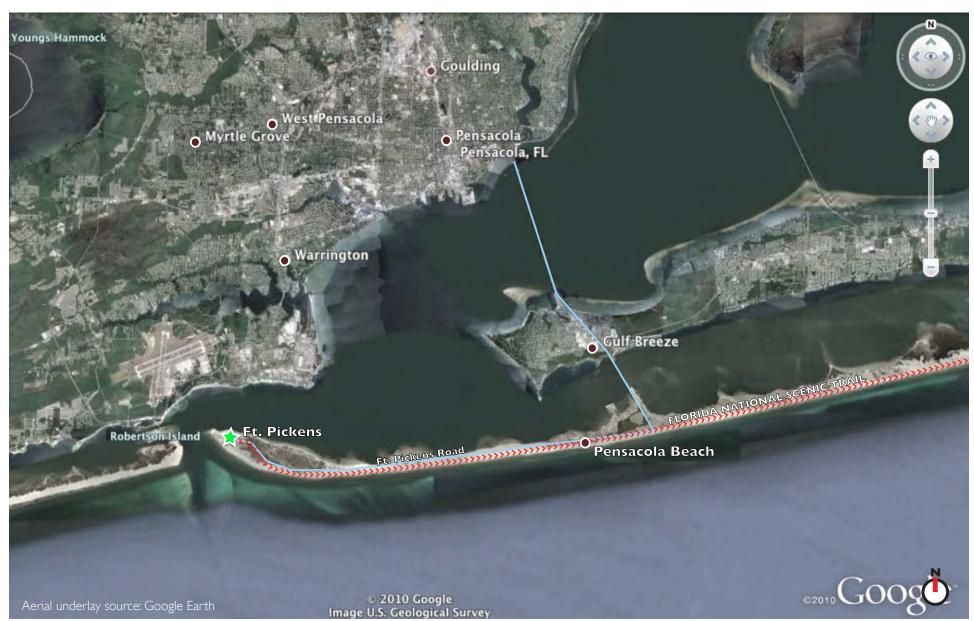## Ft. Pickens Existing Conditions- LOCAL CONTEXT MAP

Figure 24- Regional context of the Ft. Pickens trailhead. In this region the trail travels along beaches, sidewalks, and bikepaths. Currently, the trailhead is accessible by automobile or bicycle. The road to Ft. Pickens is highly susceptible to sea level rise and will likely be closed in the future.

Ft. Pickens Existing Conditions- SITE CONTEXT MAP

Figure 26- The FNST in the vicinity of Ft. Pickens. The trail starts on the Ft. Pickens site and soon travels past brackish sloughs and past Battery Worth, another fort in the area. The Ft. Pickens site currently has attractions dispersed around the site with the visitor's center and fort, FNST northern terminus, and concessions inconvenient to one another.

Ft. Pickens Existing Conditions

Site Conditions

Ft. Pickens is located at the end of Ft. Pickens Road, one of two main roads in Pensacola Beach that branch out from the Pensacola Bay Bridge. Ft. Pickens Rd. has low speed limits (between 15-35 mph) making it friendly for the bicyclists that frequent it and the adjacent paved bike/pedestrian paths. The Pensacola Beach road entrance to the Gulf Islands National Seashore is 7 miles from the Ft. Pickens site. At this point there is an information kiosk with several flyers and signs pinned into it, including a FNST logo sign. The kiosk is an admirable effort but because there are so many small pieces of information collaged onto it without hierarchy, the FNST sign (and most other information) is lost. The FNST presence in Gulf Breeze and the surrounding communities, as orange blazes mark street signposts and other inconspicuous places to help hikers navigate the variety of trail types they experience.

From the kiosk to the fort itself the road travels past white sand beaches and dunes that are being reconstructed after the damage caused by Hurricane Ivan. For several years the road was impassable because deep sand had covered it. Ft. Pickens road ends, unsurprisingly, at Fort Pickens, which is essentially a cul-de-sac at the end of the road. The parking lot in front of the fort can accommodate 50 cars and three tour buses with overflow parallel parking along the loop road that goes through the site. There is no bicycle parking although bicyclists are a common sight at Ft. Pickens. During a three-hour site visit, three groups of cyclists came to the site, dismounted, and then turned around without experiencing the historic fort, as they were unable to find a secure place to leave their bicycles. Currently there is no bus or ferry to Ft. Pickens.

The site's amenities are consistent with a National Park Service visitor's center site. Developed bathrooms, a ranger station/visitor's center, gift shop, and interpretive signage are found at the site. The only seating is an amphitheater in an open area within the fort. There is no other place for visitors to picnic or rest during their visit. A new, cohesive interpretive signage program is in the process of being implemented throughout the Gulf Island National Seashore. The fort is an historic

naval base that was in operation from 1834 through the 1940s. A visitor to the fort has the opportunity to watch the evolution of the cannon and to experience the impressive brickwork common to historic naval architecture. The site is maintained as a ruin and visitors are welcome to explore on their own or to take a guided tour. As visitors approach Ft. Pickens from the parking lot they are offered iconic views of the fort structure along a 100 ft. concrete sidewalk. Any future development must not obstruct, but could potentially reinforce, these views.

The FNST's trailhead is 150 feet north of the northernmost building of the fort. An interpretive/informational kiosk marks the trailhead with space for two panels enclosed by a locking glass cases. Only one case currently contains any information. The panel is a dated and faded interpretive panel offering information about the FNST system as a whole with several artists renderings of wildlife and ecosystems that may be encountered along the FNST. No contact information for local managers or even the overall managing partners of the FNST is present. Likewise, no information is present about the local hiking experience, such as a detailed area trail map. The other case is completely empty right now. The kiosk panels are protected from sun and rain by a light frame roof structure that has been able to weather the hurricane season for ten years.

The distance of the kiosk structure and trailhead make the FNST presence on the site nearly invisible unless a visitor came specifically for the purpose of using the Trail. During the same site visit described above only one group of over fifty that were observed on the site interacted with the FNST kiosk and none actually hiked on the Trail. The section of Trail directly east from the kiosk is quite lovely and intriguing giving visitors the experience of every part of a barrier island ecosystem, while also taking them past a second, smaller fort and World War II era cannon fortification in a hammock overlooking the dazzling beach. These are all experienced on foot within 2 miles of the FNST Northern Terminus at Ft. Pickens. Because this experience is so unique to the FNST and this particular area, it is critical that the trailhead becomes an integrated part on the Ft. Pickens site just as the visitor's center and gift shop have.

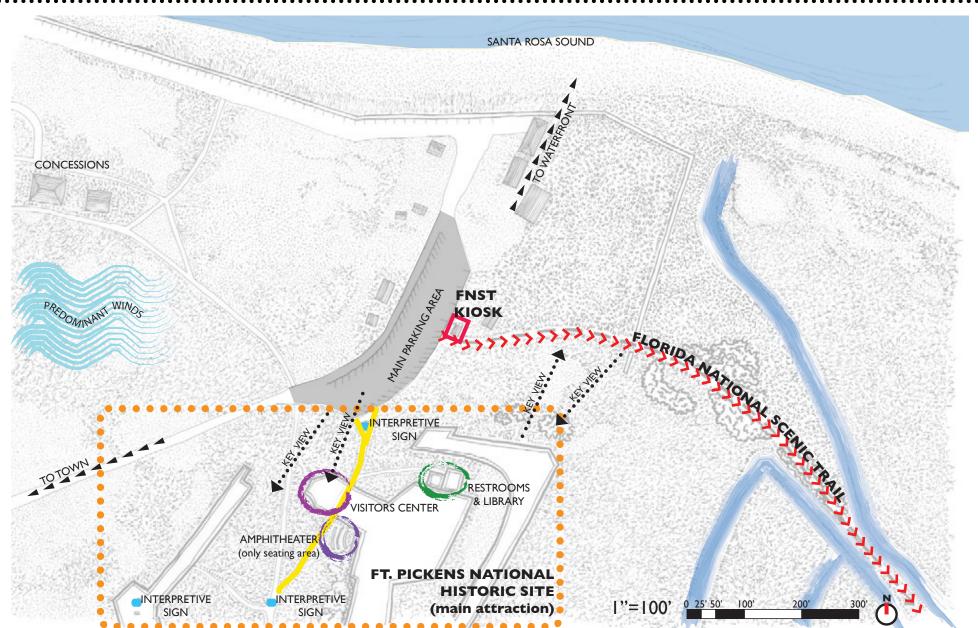# *Ft. Pickens Existing Conditions- SITE CONDITIONS*

Figure 26- Exisitng physical conditions on the Ft. Pickens site. The site is highly developed with concessions, a visitor's center, concessions, an amphitheater, interpretive signage, restrooms, a libary, and many service buildings. Currently, the FNST trailhead is located inconspicuously with a group of non-public service buildings.

Ft. Pickens Existing Conditions

The Florida National Scenic Trail logo is part of this roadside kiosk at the entry to the Gulf Islands National Seashore. This was the only FNST road presence evident between Ft. Pickens and Navarre Beach--30 miles away.

A Civil War era cannon is part of the interpretive offering at Ft. Pickens. The site is home to impressive civel war era brick work, including beautiful lintels and twent-foot wide archways.

A panoramic view of the library park looking towards Ft. Pickens as approaching from the parking area. The visitor's center is located in the archway on the left side of this photograph. In the design and construction of a new trailhead it is important that iconic views, such as this one, are preserved.

Ft. Pickens Existing Condtions

photo by Anya Dobrowolski

The interpretive program at Ft. Pickens offers exclusively anthropocentric historical interpretation. This leaves the FNST with the opportunity to interpret the area's ecology.

photo by Anya Dobrowolski

This amphitheater offers the only outdoor seating at Ft. Pickens. With the addition of more intimate seating opportunities, the area would be more friendly for visiting families.

photo by Anya Dobrowolski

The existing FNST trailhead at Ft. Pickens. The existing condition offers little draw for Ft. Pickens visitors and lacks enthusiasm for thru-hikers completing their 1,500-mile journey.

photo by Anya Dobrowolski

The interpretive offering on the site is one empty plexi-glass case and another case with an interpretive sign with out-of-date information.

Ft. Pickens Existing Conditions

FNST blazes mark the Trail, but are haphazardly placed on an historic seawall.

The Trail crosses a brackish slough close to the northern terminus. These interior water bodies offer wildlife viewing opportunities.

A view back towards Ft. Pickens from the FNST.

An old bench provides a place to rest and take in views of the sloughs near the trailhead.

Ft. Pickens Existing Conditions

photo by Anya Dobrowolski

Battery Worth is the second historic military installation that FNST hikers will have the opportunity interpret. This site is approximately one mile from the Ft. Pickens trailhead.

photo by Anya Dobrowolski

A World War II era shield gun camouflaged among the dunes is another site to take in and interpret. This site is approximately 1.5 miles from the Ft. Pickens site.

photo by Anya Dobrowolski

Sea oats on the shore make patterns as the wind sweeps them in circles.

photo by Anya Dobrowolski

The Gulf Coast of Florida is reknowned for white sand beaches. This area about 2.5 miles from the Ft. Pickens trailhead shows the stark drama of the sand juxtaposed agains the blue skies.

Ft. Pickens Existing Conditions

Constraints Analysis

The distance of the FNST kiosk from the main attraction at Ft. Pickens and its lack of current information is a major liability, preventing visitors who may be potential FNST users from learning about this opportunity. Because the kiosk is located on the fringe of the site, it is on the periphery (literally) of visitors' sight lines. Its diminutive size, as mentioned above, camouflages its purpose, making it appear to be another service building. It is hardly the celebration that someone completing a thru-hike of the FNST deserves after hiking 1,500 miles. This site should be an exclamation mark. Right now the Trail makes no effort to call attention to itself.

Presenting information about the entire Trail, the local section of Trail, and any important safety and contact information is critical to many FNST sites. Because the current signage is out-of-date, the kiosk feels irrelevant and neglected. The current panel does not have the correct length of the trail and provides no information about the immediate context. Without these basic pieces of information present and correct, there is nothing to entice new users to the trail. Providing interpretive information about the ecological and hydrological qualities of the area is an opportunity to spark interest in visitors, while filling in a gap in the Ft. Pickens interpretive program.

The surrounding towns do not show much evidence of FNST presences aside from a kiosk at the Navarre Beach Visitor's Center. A kiosk at the Opal Beach Wayside was destroyed in Hurricane Ivan and has not been replaced in the last six years. As the Trail travels through Pensacola Beach and Navarre, only the small orange blazes mark the path on road sign posts and guardrails. This is a tremendous missed opportunity to inspire curiosity and raise awareness of the FNST in the communities it touches. Similarly, no serious effort has been made towards offering information or interpretation about the FNST in the city of Pensacola aside from perhaps the occasional spray of pamphlets at a visitor's bureau or chamber of commerce office.

Alternative transportation options are a challenge for most FNST sites including Ft. Pickens. As observed above, road cyclists frequently visit the site and yet it does not offer any site furnishings for bicyclists to lock their bikes, barring them from experiencing Ft. Pickens or the FNST. Pairing bicycle racks with a FNST structure would bring awareness of the trail to another group of potential users. The drive to this trailhead from downtown Pensacola is currently quite short at 19 miles, but in the future these roads may be impassable with the effects of hurricanes and sea level rise. The NPS vision of a ferry from Pensacola to Ft. Pickens will not only solve the problem of road inaccessibility, but it will allow users without automobile access to use the site, such as children, some elderly people, and those who do not own a personal vehicle. Therefore, it is a desirable condition for the ferry to become a reality even before the roads become unusable. If a ferry system is to be implemented it will be key to make sure that the cost is low (or even free) to site visitors. This will allow lower income locals, not only tourists, to access Ft. Pickens and the FNST. Aside from the cost of driving to the site, this site does not constrain users financially with any day use fees.

The lack of interest and the poor health/body image constraints may be reinforced by the lack of seating and picnicking areas. As mentioned above, the only seating provided on site is a large amphitheater. Because there are no places to linger and rest, this site is difficult for families with children and also the elderly or those less able to visit the site comfortably. It essentially turns the Ft. Pickens site into a circulation space and not one where visitors may linger and contemplate the site's historic significance and future trajectories.

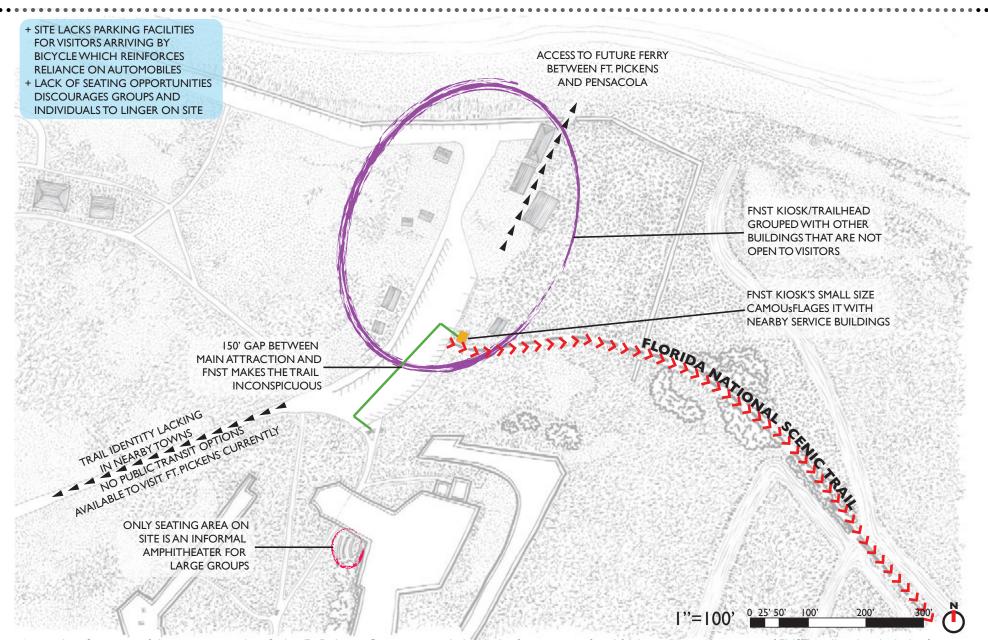## Ft. Pickens Existing Conditions- CONSTRAINTS ANALYSIS

+ SITE LACKS PARKING FACILITIES FOR VISITORS ARRIVING BY BICYCLE WHICH REINFORCES RELIANCE ON AUTOMOBILES
+ LACK OF SEATING OPPORTUNITIES DISCOURAGES GROUPS AND INDIVIDUALS TO LINGER ON SITE

ACCESS TO FUTURE FERRY BETWEEN FT. PICKENS AND PENSACOLA

FNST KIOSK/TRAILHEAD GROUPED WITH OTHER BUILDINGS THAT ARE NOT OPEN TO VISITORS

FNST KIOSK'S SMALL SIZE CAMOUsFLAGES IT WITH NEARBY SERVICE BUILDINGS

150' GAP BETWEEN MAIN ATTRACTION AND FNST MAKES THE TRAIL INCONSPICUOUS

FLORIDA NATIONAL SCENIC TRAIL

TRAIL IDENTITY LACKING IN NEARBY TOWNS

NO PUBLIC TRANSIT OPTIONS AVAILABLE TO VISIT FT. PICKENS CURRENTLY

ONLY SEATING AREA ON SITE IS AN INFORMAL AMPHITHEATER FOR LARGE GROUPS

1"=100'

0 25' 50' 100' 200' 300'

N

Figure 27- Summary of the constraints identified at Ft. Pickens. Constraints include a lack of awareness of trail facilities due to poor siting of FNST trailhead and a lack of interest because of the poor informational and interpretive offerings. The site does not accomodate visitors well because of its lack of seating opportunities.

CONCLUSIONS

The sites examined were identified by Forest Service and Florida Trail Association Staff as sites that needed "help." However, it was initially unclear what the problems with these sites were. Using Shores, Scott, and Flyod's nine outdoor recreation constraints as a lens to examine the sites provided an easy framework for analysis. Several undesirable patterns (or "anti-patterns) were identified on the sites. Each of the anti-patterns falls into one of three design scales:

1) Planning Scale- has to do with pre-site entry interactions with the resource, i.e.--getting people to the resource

2) Site Scale- has to do with interactions with the physical characteristics of the site and immediate surroundings after users have entered the site

3) Informational/Interpretive Scale- has to do with how agencies communicate information about the trail and the area to site users

The anti-patterns can be further grouped to extract larger implications that point to the current paradigms of trailhead development. The larger paradigms implied by the identified anti-patterns include: assumed access automobile transportation; lack of promotion of the resource; design for individuals or small groups; and low levels of site maintenance and/or development. In turn, the anti-patterns then reinforce constraints. Table 2 explains these relationships.

All but one of Shores, Scott, and Floyd's constraints were manifested by the anti-patterns observed on FNST trailhead sites. The only unobserved constraint was "Lack of Partner," an interpersonal constraint that is difficult (if not impossible) for the physical environment to create. The question then becomes one of how we as designers, land managers, and others interested in the development and promotion of outdoor recreation can break down these constraints through the design of our trailhead experiences. It is clear that FNST trailheads have not been designed to exclude or discourage any particular user group from using the trail but rather factors such as low levels of funding and a priority on completing the trail itself have let the design of trailhead facilities fall by the wayside. The conditions observed in the case study existing conditions reports are not completely unique to the FNST. In fact, in the conditions observed on the FNST trailheads are similar to many

trailheads throughout the United States that the researcher has visited, regardless of managment agency or geographical context.

The next chapter presents a set of design strategies that are derived directly from the observations made in the constraints analysis with the intent of lessening the impact of leisure constraints on a variety of user groups.

CONCLUSIONS

MANIFESTATIONS OF CONSTRAINTS AS OBSERVED ON FNST TRAILHEAD SITES

PARADIGM exemplified by these	ANTI-PATTERNS which manifest these	CONSTRAINTS on the following	SCALES
Assumed access automobile transportation	Lack of non-automobile access to trailhead sites (bike/ped paths & public transit)	Lack of Automobile Transportation Lack of Discretionary Income	Planning
	Long distances between trailhead locations and human settlements	Lack of Time	Planning
	No bike racks or other bike friendly facilities	Lack of Automobile Transportation	Site
	Disproportionate amount of site's square footage devoted to parking, and not to human use	Lack of Automobile Transportation	Site
Lack of Resource Promotion	Lack of trail visibility in nearby communities	Lack of Awarenss - Lack of Interest	Planning Info/Interpret.
	Lack of FNST signage on nearby roads	Lack of Awarenss - Lack of Interest Lack of Time	t
	Kiosks and other trail related amenities are located away from the site's main attractions	Lack of Awarenss - Lack of Interest	Site
	Kiosks lack appropriate/current/useful information	Lack of Interet Disapproval of Activiites Encountered Lack of Time	Info./Interpret
	Lack of FNST branding on the site	Lack of Awareness	Site Info/Interpret.
Designs only support individuals or small groups	Road crossings without protection from automobiles (no crosswalks or signage)	Disapproval of Activities Encountered Poor Health/Body Image	Planning Site
	Lack of gathering space	Poor Health/Body Image Lack of Interest	Site
	Lack of seating	Poor Health/Body Image Lack of Interest	Site
Low levels of site development and maintenance	Walking on busy/fast roads to access trail from trailhead parking areas	Disapproval of Activities Encountered Poor Health/Body Image Lack of Interest Fears of Violence/Discrimation (Safety)	Site
	Unkempt/messy/littered/poorly maintained sites	Fear of Violence of Discriminaton Lack of Interest	Site
	Kiosks do not exist	Poor Health/Body Image Lack of Interest	Site Info/Interpret.
	Lack of protection from the elements	Poor Health/Body Image	Site
	Sites do not provide a sense of enclosure at a comfortable scale	Fear of Violence of Discriminaton	Site
	Brochure boxes are empty	Lack of Interest	Site Info/Interpret.
	Choosing trailhead sites in private, or unwelcoming locations	Lack of Awareness Fear of Violence/Discrimination	Planning

Table 2- Manifestations of constraints as observed at FNST trailhead sites and their relationships to paradigms of outdoor recreation design and undesirable site conditions.

CHAPTER 3:

DESIGN STRATEGIES FOR FLORIDA NATIONAL SCENIC TRAIL TRAILHEADS

"The structure of life I have described in buildings - the structure which I believe to be objective - is deeply and inextricably connected with the human person, and with the innermost nature of human feeling. " ~Christopher Alexander

CHAPTER 3:
DESIGN STRATEGIES FOR THE FLORIDA NATIONAL SCENIC TRAIL'S TRAILHEADS

DEFINING DESIGN STRATEGIES

In *A Pattern Language,* Christopher Alexander and his collaborators present a set of design strategies and elements that aim to materialize Alexander's vision of a utopian society. Alexander et al.'s design patterns are derived from several years of experience in the planning of neighborhoods and the design and construction of buildings (Alexander 1975). Similarly, the deslgn strategies proposed in this chapter are a direct result of the observations made in the analysis of existing conditions and constraints as detailed in Chapter 2's case study with the goal of democratizing the trail experience. These FNST Trailhead Design Patterns address the anit-patterns identified, in some cases creating obvious, dualistic suggestions; in other cases, the responses are more subtle.

The design strategies described in this chapter are a set of physical and conceptual patterns that can be used to create more welcoming site designs for the Florida National Scenic Trail's trailheads that will be useful for other trails as well. These strategies differ from design guidelines in that they define the actual design elements that may be implemented to increase the comfort of trailhead visitors, whereas design guidelines for trailheads would create a set of standards that create uniform character of those elements on the designed sites.

Performance guidelines, however, give qualitative or quanitative objectives that a design will achieve when it is performing optimally without giving strict formal prescriptions. The FNST strategies are similar to performance guidelines, in that they provide a set of expected outcomes that come as a result of implementing the strategy.

Because the trailhead sites vary in their cultural, ecological, and geographic contexts, the design strategies can be applied on any site to create a consistent FNST programmatic offering, while responding to the constraints particular to each site.

The focus of this document is to provide examples of how a trailhead can be developed to be socially relevant for a diverse group of users. It aims to present the content in a way that can be understood by everyone involved in the process of developing trailhead facilities.

The design strategies may be used as a tool to help the design team to communicate to land mangers and owners about how the values of the FNST are translated into the built environment. The patterns are also practical strategies that can then be taken from concepts to built form as demonstrated in Chapter 4.

THE FNST STRATEGIES AND THEIR APPLICATION

For this study twelve strategies have been developed for the FNST Trailhead Strategies, although innumerable patterns could potentially be created to address other types of issues not considered in this project such as ecological and economic sustainability. There could certainly be other strategies developed towards the goal of increasing social relevance. More specific details such as site circulation/navigation and the construction of built elements may be more appropriately addressed in a set of design guidelines. The patterns are grouped into the three scales defined at the end of Chapter 2 (p. 93)- planning. site, and information/interpretation- as follows (note: some patterns fit into more than one category):

Planning Scale- *physical pre-site entry interactions with the resource, i.e.– getting people to the resource*

PATTERN #1- COMMUNITY TRAILHEADS
PATTERN #2 - ARRIVING BY BIKE (OR FOOT)
PATTERN #3 - CELEBRATE URBAN TRAILS
PATTERN #7 - LOUD ROAD CROSSINGS
PATTERN #9 - HIERARCHY OF SIGNS
PATTERN #11 - INFORMATION CLEARINGHOUSE

INTRODUCTION

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Site Scale- *interactions with the physical characteristics of the site and immediate surroundings after users have entered the site*

    PATTERN #4 - CLUSTER SITE AMENITIES
    PATTERN #5 - BUILD FOR LOW MAINTENANCE
    PATTERN #6 - THE CORRAL
    PATTERN #7 - LOUD ROAD CROSSINGS
    PATTERN #8 - SUPPORT ALTERNATIVE TRANSPORTATION
    PATTERN #9 - HIERARCHY OF SIGNS
    PATTERN #12 - INTERPRET HIGH USE SITES

Informational/Interpretive Scale- *how agencies communicate information about the trail and the area to site users*

    PATTERN #9 - HIERARCHY OF SIGNS
    PATTERN #10 - GET WITH THE TIMES
    PATTERN #11 - INFORMATION CLEARINGHOUSE
    PATTERN #12 - INTERPRET HIGH USE SITES

By examining the existing conditions on the site by either looking for "anti-patterns" or by more deeply analyzing the site through the lens of leisure constraints, the design team can determine which of the twelve strategies should be applied to an individual site. While the strategies could be used individually, they will be most effective if used as a set of strategies. The strategies, much like the problems they address, are often interconnected and the design of a site, and ultimately the user experience will be richer as more design strategies are considered. Not all patterns will be applicable or necessary on each site but the following patterns will most likely fit any and all sites:

    PATTERN #2 - ARRIVING BY BIKE (OR FOOT)
    PATTERN #5 - BUILD FOR LOW MAINTENANCE
    PATTERN #6 - THE CORRAL
    PATTERN #8 - SUPPORT ALTERNATIVE TRANSPORTATION
    PATTERN #9 - HIERARCHY OF SIGNS
    PATTERN #10 - GET WITH THE TIMES

READING THE STRATEGIES

For consistency and ease of use, the strategies follow a consistent format. First a photograph or other picture that represents the spirit of the pattern. Next, a brief explanation of the problem and context of the pattern is presented as evidence the necessity for the strategy. Third, a bolded headline describes the core of the solution along with an icon or diagram used as a symbol to synthesize the strategy's meaning. Fourth, an overview of how implementation of the strategy may be conceptualized is presented. Finally, a set of outcomes that can be expected as a result of the pattern's implementation are presented to conclude each pattern's description. These anticipated results may also be seen as overarching goals for the trailhead design.

PLANNING SCALE STRATEGIES: #1- COMMUNITY TRAILHEADS

http://www.ymcasf.org/richmond/facilities/trailhead_to_ggnp

A community trailhead at a San Francisco YMCA takes people from the urban grid to the trails of Golden Gate National Park.

Explanation

Using community spaces as trailheads allows local residents in trailside towns and cities to see the FNST as a resource in their community, instead of it feeling removed or even non-existent. This strategy attempts to break the land use pattern that creates separate zones of use, and in particular that which separates urban land from the country. By putting trailheads into communities, we bring fingers of the country into the city via recreational corridors.

To bring recognition to the Trail in surrounding communities, marketing and outreach efforts should be combined with bringing the resource into the community. By placing trailheads where people live, less marketing of the experience will be necessary, as the Trail becomes a relevant entity in lives of community members. This will aid in creating the initial positive experience with the Trail that will make hikers want to share the experience with others.

Word of mouth is often touted as the best form of advertising even in the marketing of outdoor recreation opportunities (Stein et al. 2008). It will take the initial users finding and using the trail to create that initial experience that will be passed on by word of mouth to their surrounding community.

The Florida National Scenic Trail can create these incidental contacts by locating trailheads and kiosks in important community places. This will increase the community's awareness of this unique resource readily available within their grasp and will also reduce the effects of the "lack of interest/exposure" and "lack of awareness" constraints. Potential new users will learn about the wide variety of experiences available on the FNST in and near their community.

Bringing the Trail to town combats time, transportation, and financial constraints by making the resource easily accessible, without requiring recreationists to drive long distances to enjoy it and without having to own a car. It encourages people of many ability levels to walk or hike on the Trail, which then turns the FNST into a welcoming amenity available to their community and allowing users to create their own positive relationship with the Trail. The National Trails System Act was established: to connect and serve people in urban areas who otherwise may not have easy access to recreational resources (US Congress 1968). By putting trailheads in commonly held and welcoming community hubs, the FNST will expose and encourage a wider range of users to the resource.

Choosing urban sites that are privately owned and managed when siting trailheads in towns will cause sites to become more highly impacted by economic downturns. If the landowner of an urban site vacates the property, the site will feel abandoned. Perhaps a greater detriment these locations pose is social exclusivity to some segments of the population. Instead of empowering new users, a private location may reinforce stereotypes about who a hiker is and what he or she looks like.

PLANNING SCALE STRATEGIES: #1- COMMUNITY TRAILHEADS

Therefore:
Build trailheads in country, wilderness, AND IN TOWNS AND CITIES NEAR THE TRAIL. In town choose sites such as public parks, libraries, city halls, post offices, YMCAs, Boys & Girls Clubs, or even grocery stores that are centrally located and welcome the public to reach out to the broadest possible spectrum of the population.

Implementation

The local population and potential stakeholder groups must be engaged in the process from the beginning. Engaging community members from the start will create a feeling of ownership for the project within the community, and lead to long-term stewardship. Begin by engaging local leaders and leadership organizations in the process of choosing a site. These people will have insight into what locations receive high traffic that would also benefit from the FNST presence. The chosen site should already have, or be easily enhanced to have, a high level of pedestrian, bicycle, and/or public transit connectivity to encourage diverse transportation options.

Many organizations, such as the Centers for Disease Control and the Federal Highway Administration, offer grants for improving the recreational resources and walkability of a community. Tap into these resources to find project funding. The design and build processes, much like the siting process, should engage community members, empowering them to invest time into the resource and therefore to steward it for the future.

When the build-out phase is complete a management regime should be created that includes the physical maintenance of the site and nearby trail resource, but also the social aspects of trail use. This maintenance regime should include scheduling events that activate the space, such as community picnics and guided hikes led by Florida Trail Association volunteers. A volunteer trail liaison should be responsible for each community trailhead. This person will address any physical issues that occur on the site and will coordinate FNST events that originate at the trailhead site.

Expected Outcomes

• A sense of community ownership of the resource results in larger numbers of future trail stewards

• Awareness of the FNST in the local community is increased and the number of trail users, especially local residents, increases

• Community members see this connection to the "natural" world as a part of their daily lives. A greater appreciation of natural resources as a result of connecting to the FNST is created

• A more racially/ethnically, socio-economically, age, and gender diverse group of users connects to the Trail as a result of its local availability and the variety of experiences it provides

• Users find partners in the community more easily because the resource is made readily accessible and does not contribute to the lack of time constraint

• Public outdoor rooms in the community become more lively and used more often as a result of bringing new activities to the sites

• Curiosity about other parts of the FNST is inspired and users start to explore other parts of the Trail, increasing their appreciation of the resource and the outdoors

PLANNING SCALE STRATEGIES: #2- ARRIVING BY BIKE (OR FOOT)

http://0.tqn.com/d/dc/1/0/W/u/biketrail.jpg

This neighborhood bike/pedestrian trail travels through many ecosystems and close to many human developments. It is actually part of Rock Creek Regional Park, which connects residents of Washington DC and surrounding suburbs to open space outside of the metropolitan area.

Explanation

Giving people the ability to connect to the FNST without using an automobile will allow a new group of users the opportunity to use the FNST on a more regular basis. Many people, particularly those with low socioeconomic status, are less likely to own an automobile. Making the Trail only available by car alienates traditionally underserved populations from using the Trail on a regular basis. The FNST corridor travels adjacent and through many impoverished communities; it should not be assumed that residents are able to afford the time or money to drive themselves or family members to a recreational amenity; nor should it be assumed that everyone who wants to access the Trail owns an automobile.

Creating side trail connections to nearby communities will have many benefits for community members; increasing the social value of the FNST. Awareness of the resource and interest in trail use will be peaked in communities that the Trail directly connects to (Louv 2008).

The Centers for Disease Control estimates Florida's obesity rate at 25.2% (Prevention 2010). There is much discussion revolving around the idea of "food deserts" today. These are places where it is difficult or impossible to access fresh food within walking distance of people's homes. The same concept may be applied to recreation. "Recreation deserts," then, are places where opportunities for informal and passive recreation activities, such as walking, hiking, and bicycling, are not easily accessible to the local population. Access to passive recreation is as critical to remedying the obesity epidemic in American as access to healthful food is. Promoting passive recreation will allow active lifestyles to be integrated into the American psyche, instead of it physical activity being a forced necessity Allowing people to walk or bicycle to the FNST will promote daily physical activity. A network of side trails connecting cities and towns to the FNST, could start to restore "recreation deserts," giving people daily access to the Trail.

In a time where our culture is growing more isolated from the surrounding landscape, it is important to make interaction with hiking trails a part of all communities. The experience should not be isolated or "special." These experiences should be made available as an everyday activity. By creating an outlet from human developments to undeveloped or "natural" areas, the idea of being within wildlands can become a comfortable and common experience. This can potentially break down historically negative feelings associated with the wilderness, which will create empathy for these landscapes and garner more support for landscape conservation efforts. These connecting trails will encourage users to discover the wonderful places that are available within walking distance from their homes and parks, helping communities to realize the larger landscape context they live within.

PLANNING SCALE STRATEGIES: #2- ARRIVING BY BIKE (OR FOOT)

Therefore:

Connect users to the FNST directly from where they live, offering people-powered options for accessing the Trail and its trailheads. This network will consist of walking and bicycling facilities that may be labeled as side trails for the FNST.

Implementation

To connect users to the FNST without the need for automobiles, the FNST must be visualized as a network of paths, instead of a single corridor. This network connects people to natural and cultural resources available in and around their communities.

Create blue blaze side trails through towns that connect residents to the edges of town. From the edge of town a bike/pedestrian path that is adjacent to roads that connect to FNST trailheads or a path that travels through public open space and through easements on private property should be provided to give users a safe, non-automobile dependent connection to the Florida Trail and/or an FNST trailhead. This creates a gradient of urban to sub-urban to rural or wildland experiences as the user moves further and further from their home. In town, theses trails should link back to a Community Trailhead site (Strategy #1).

Much like in the building of Community Trailheads (Strategy #1), the community must be engaged in the process of building connecting trails. Community participation is an excellent way to bring awareness to the resource's existence and also to create interest in using it. By having community groups build the trail, it becomes more likely that community stewardship and maintenance for the resource will continue into the future. Many of the same groups that

groups that would offer grants and other types of funding for community trailheads, would be likely be the same organizations that may grant funding for connecting trails. In particular, the Federal Highway Administration now requires that pedestrian and bicycle improvements are made whenever any FHA funding is received.

Expected Outcomes

• A sense of community ownership of the resource results in larger numbers of future trail stewards

• Awareness of the FNST in the local community is increased and the number of trail users, especially local residents, increases

• Community members see this connection to the "natural" world as a part of their daily lives. A greater appreciation of natural resources as a result of connecting to the FNST is created

• The FNST lowers its carbon footprint by allowing users to access it by using alternative forms of transportation

• An informal, passive recreation opportunity allows all locals to use trails without self-consciousness and preconceived notions about what hikers look like or what their social position is

• A more racially/ethnically, socio-economically, age, and gender diverse group of users connects to the Trail as a result of local availability and a variety of experiences provided

• The lack of time constraint is reduced, as users are able use the FNSTs system of side trails that is located in their communities, near their homes

• Curiosity about other parts of the FNST is inspired and users start to explore other parts of the Trail, increasing their appreciation of the resource and the outdoors

• The FNST lowers its carbon footprint by encouraging users to access using alternative forms of transportation

PLANNING SCALE STRATEGIES: #3- CELEBRATE URBAN TRAILS

http://www.andreasernst.com/usaboston.html#Seitenbeginn

Along Boston's Freedom Trail visitors learn about significant historical events while seeing the associated sites. The trail is a 2-course brick path inset in the concrete sidewalk with key points marked by inset bronze plates that act as blazes, as seen above.

Explanation

Currently, the FNST guides users through town by connecting them with the iconic orange blazes painted on vertical surfaces. When standing next to one blaze, the hiker should be able to see the next blaze. While the blazes are recognizable to those specifically looking for them, their small size (approximately the size of a dollar bill) makes them inconspicuous to those unfamiliar with the resource. This is particularly problematic when the Trail is an area that has an overabundance of signage. For this reason, this pattern proposes celebrating and enhancing the FNSTs presence when it travels through the developed areas where people live, work, and play.

The Florida National Scenic Trail can celebrate not only the state's undeveloped lands, but it can also bring awareness, contributing to a community; allowing users to interpret the diversity of Florida's

developed and undeveloped landscape both, without having to negotiate time, money, and transportation constraints to have a Trail experience. Likewise, embracing the FNST as an urban amenity as well as a rural and backcountry opportunity allows people who have fears about violence, discrimination, and safety or insecurities about hiking due to health or body image issues a way to participate in the FNST in a comfortable setting. If routed strategically, the Trail can also highlight local businesses that may be useful to thru-hikers and other area tourists. In this way, the Trail then becomes an enhancement to a local tourist economy although it should be noted that the FNSTs presence should not be sold as a way to create a tourist economy, although it may enhance it somewhat. The primary goal of this pattern is to serve local residents by highlighting this recreational opportunity in their communities.

Therefore:
When the FNST travels through human developments, envision it as a different type of trail, creating a cultural corridor that celebrates the history and/or creativity of the local community and its people.

Implementation

The urban trail should have a fundamentally different character from backcountry trails. Trails in the woods connect people to those surroundings and provide them with a deeper understanding of the place. Urban segments of the FNST should strive to connect people to the cultural and historical resources in their community. It should allow users to interpret the values of the communities through which it passes highlighting important businesses, beautiful residential and civic areas, and public open spaces.

PLANNING SCALE STRATEGIES: #3- CELEBRATE URBAN TRAILS

Begin dialogues with local historical societies and/or arts organizations to gain local support for the project. Work with these groups to locate control points in the town that the Trail would connect. These control points are places of particular historical and/or cultural significance. In the case of an art trail, the process may be to choose a type (or types) of object(s) that would become the canvas for artwork, such as walls, paving, or curbs. In this process the movement of the trail would be the driving force behind choosing control points. In the cases of both art and historic trails (or hybrids), think beyond only using paint as a medium. Tile mosaics can artistically alter paving patterns, street planters, and walls. Sculptures can lead the eye down the path in town the way that blazes direct the hiker's eyes through the backcountry. A special paving pattern of some sort may accompany the trail, making it evident that the trail does exist.

The Trail may also weave through any downtown areas, especially historic areas and important, and walkable shopping districts. The Trail should also pass by places that will help a thru-hiker wuth his or her resupply needs such as grocery stores and post offices when they are available in the town or city core. The route chosen should be comfortable and safe to walk along. The idea is to encourage people to use the Trail by creating an urban amenity that serves many types of users.

Funding for projects like this may be, once again, found by looking to groups that promote walkability. Other funding sources may include local, state, and national arts councils and government agencies. Engaging children and college students in a collaborative process could be a particularly strong element that would attract attention and possible funding to these projects. These groups would certainly help to provide free labor and perhaps design services.

Expected Outcomes

• A sense of community ownership for the trail results in larger numbers of future trail stewards

• A new type of FNST user emerges--the urban hiker, who uses the trail to connect with the cultural richness of Florida's cities and towns

• Awareness of the FNST in the local community is increased and the number of trail users, especially local residents, increases

• Community members are given the opportunity to learn more about their community's history and culture and it inspires a pride in place

• An informal, passive recreation opportunity allows all locals to use trails without self-consciousness and preconceived notions about what hikers look like or what their societal position is

• A more racially/ethnically, socio-economically, age, and gender diverse group of users connects to the Trail as a result of its local availability and the variety of experiences it provides

• Curiosity about other parts of the FNST is inspired and users start to explore other parts of the Trail, increasing their appreciation of the resource and the outdoors

SITE SCALE STRATEGIES: #4- CLUSTER SITE AMENITIES

http://www.fs.fed.us/wildflowers/regions/pacificnorthwest/
LimpyBotanicalTrail/images/Limpy_Trailhead_and_Kiosk_lg.jpg

This photograph shows a cluster of amenities within 10 steps of each other. In this case, the main site amenity is the trail, this is supported by signage and picnic space. Interpretive and informational signage is used as a gateway to mark entry to the trail. Positive spaces are created under the eaves of the far sign.

Explanation

By clustering FNST kiosks and other amenities with existing attractions on the trailhead site, the FNSTs presence is clear to all site users. By integrating these elements into the site design FNST amenities become an asset to the site.

Many FNST trailhead sites are shared by other agencies that have already established furnishings on the site. To avoid a conflict of experiential hierarchy, the decision may be made to spatially separate the furnishings for the different recreational opportunities available to site visitors instead of integrating them to create a holistic site design. By integrating FNST kiosks and other elements with existing site furnishings, user experiences can be enhanced by defining spaces and circulation through the site.

Isolating design elements makes them inconspicuous or even invisible to site users. This reinforces the lack of interest or exposure constraint and also a lack of awareness. Scattering of design elements throughout the site makes the trailhead difficult to comfortably use and the lack of experiential hierarchy may make moving through the site confusing.

Therefore:

Cluster site amenities -- such as picnic tables, shade shelters, benches, and informational kiosks -- so they have a connection to the site's major attraction. They should be apparent to site users and they should create positive space. To do this, one must think of the site as a place to stay in as well as a place through which to move.

SITE SCALE STRATEGIES: #4- CLUSTER SITE AMENITIES

Implementation

A relationship between the cluster of amenities and the site's main attraction may be built through visual contact or spatial proximity. It is essential that the cluster does not obstruct critical, iconic views. Another way to interact with the main attraction is by placing the amenities close to it. An example of this would be placing picnic tables near the banks of a creek or placing a kiosk at the entry to the trail.

Positive space is created when structures are arranged so they surround an open, usable area on the site. The layout of site amenities should create positive space that will make the site more pleasant for users to be in by providing open spaces with a sense of enclosure. In some cases it may be necessary to propose a redesign of the site to make this possible.

Siting kiosk signage is an especially important element in the design process. If kiosk signage can be sited to create a gateway that users pass through or near as they transition from the site to the trail, the signage will become an effective non-verbal communication tool, directing users to the trail's location. The least effective siting for a kiosk forces visitors to cross a parking area to access information, as this is a safety hazard, especially for families with small children.

Expected Outcomes

• Site users become aware of FNST presence on the site and users return to the site to use the trail or take informal walks on the FNST during visits intended for accessing another attraction

• Site users have positive associations with the FNST as a result of supportive site designs

• Legible site design puts users at ease, encouraging users to linger on the site

• Site users easily and safely navigate the site without need for text on signs

• The site's design feels organized and intentional

SITE SCALE STRATEGIES: #5- BUILD FOR LOW MAINTENANCE

At the Lost Dog Wash Trailhead outside of Scottsdale, Arizona high quality, locally available materials were chosen to furnish the site. Because of the local origin of most of the materials used on the site, the design will be able to withstand the local climate and the design blends into the landscape seamlessly.

Explanation

Many developed Forest Service recreation sites have a rustic quality that helps the site blend into the landscape. It is a design aesthetic that aims to use materials as close to their natural state as possible. The ideal of furnishings on site appearing to be in a rustic style is different than a site simply seeming unkempt. If a site is to be attractive to a wider range of users than those who will only use it as a parking place, then it must appear to be well maintained and monitored. When a site feels neglected it will reinforce fears about violence and safety as users may perceive the site to feel abandoned.

The trailhead site often serves as a pivot point between human

developments and the backcountry or wilderness. It should reflect both the developed and the undisturbed. Negative traces of human use such as litter and graffiti, as well as signs of neglect such as rotting structures and inaccurate signage will make the site feel neglected. In surveys, visitors express a desire to interact with land managers and stewards when visiting public lands (Johnson et al. 1998; Lopez et al. 2005). If this personal interaction is not available on every site, then at least the hand of the steward should be made evident by level of care shown at the trailhead.

Therefore:
Only install amenities on the site that can be maintained often enough that they make the site feel well cared for and supervised. Choose durable, high quality materials over cheap, quick fixes.

SITE SCALE STRATEGIES: #5- BUILD FOR LOW MAINTENANCE

Implementation

When choosing construction materials and pre-fabricated items for a trailhead site, consider the durability of materials and quality of craftsmanship. Although the upfront cost may be more expensive, the lifetime costs of better quality products will be lower, as they need to be replaced less often, allowing money and volunteer hours to be spent on other projects. Consider how much maintenance is required by a material decision and how that material ages.

The design development phase should involve materials and product research as well as consultation with those who will maintain the site. Before making any design decisions materials should be researched to determine the level of maintenance they will require and also to understand if they will work with the aesthetic values espoused by the USFS Built Environment Image Guide (2001). When the initial materials research phase is complete, conversations should be had with land managers and volunteers who maintain the site to determine how often the site currently is maintained and what level of effort landowners and stewards are capable of providing.

Kiosks, brochure boxes, trail logs, and site furnishings such as toilets, benches, and canopies should be considered thoroughly. All of these amenities must feel permanent for the site to feel established, monitored, and welcoming. If brochure boxes go empty or there is not room to sign into a trail register, it becomes obvious that a site is not tended to regularly. Using a flexible, modular approach to the design of the kiosks and corrals will allow pieces to be removed in the future if they cannot be maintained.

When the site design is complete and construction has begun, develop a maintenance plan for each site, tailored to that site's needs. This plan should include a checklist that is friendly for the volunteers who will most likely do the majority of maintenance work.

Expected Outcomes

• Volunteers are engaged in the design process resulting in decision making that is informed by maintenance needs

• Sites feel monitored and well tended

• The site's design is clear and legible

• Use of high quality, durable building materials makes maintenance tasks easier to perform and less frequent

• Use of permanent fixtures and furnishings makes the site feel more established and welcoming

SITE SCALE STRATEGIES: #6- THE CORRAL

http://catawba.ces.ncsu.edu/content/CatawbaCountysCompostCorral&source=catawba

This corral at a community garden in Catawba County, North Carolina groups like uses in a place that isolates them from conflicting uses. A fence physically separates the inside and outside of the corral. This could also be achieved through elements such as seating and overhead canopies.

Explanation

According to the theory of self-construal, most ethnic groups aside from Caucasian Americans and some western European, cultures recreate as groups (Walker, Deng, and Dieser 2005). In the multi-cultural society of the United States, one strategy for increasing numbers of users and user diversity is to build facilities that support individuals as well as group recreationists. This pattern aims to support families and other groups by providing a space in which to safely arrive and depart from.

On one site visit performed in this study, a family with two young daughters was observed preparing for a FNST hike on the levees at St. Mark's National Wildlife Refuge. As a harried parent was getting one

child dressed for the hike, the other child roamed around the parking lot where cars were arriving and departing. Because there was no place for the family to arrange themselves, the experience of preparing for their hike was not only inconvienient- it was dangerous. The need for a separation between automobiles and people at trailhead sites became obvious. The best solution is to create spatially separated realms for people and cars so families and others can safely prepare for their Trail experiences.

For families with young children or people with slower mobility levels it is important to have a place that is separate from moving automobiles. Safety is one of the most important goals of this pattern but logistical ease is another motivating factor. Giving a spatially separate and defined area to use as launch point or place to regroup, gives recreational groups a place to count heads and organize themselves before and after a journey on the Trail.

Therefore:
Provide a spatially defined area, separate from automobile space, that allows people to organize their things before beginning their FNST adventure.

SITE SCALE STRATEGIES: #6- THE CORRAL

Implementation

This simple design move will provide safety from unintended interaction between pedestrians and automobiles. The corral will serve as the place that says, "You are now leaving the realm of cars, and entering a place where mobility is based on your body's ability." Creating spatial definition can be done with a variety of devices. A simple fence or seat wall can separate people from cars while giving visitors a place to sit while preparing gear for a trip or changing shoes at the end. A change in the materiality of the ground plane or an overhead canopy or trellis can provide an implied edge to the corral. In a community trailhead, the corral may be a defined place within an urban park such as a stage, a seating area, or a plaza.

Depending on what the appropriate level of development is for a site, the corral may or may not include a canopy or trellis that provides protection from sun and/or rain. The corral's size will also be dependent upon the level of site development, but should be small enough for parents to be able to monitor small children who may be prone to wandering. On a highly developed site, the corral may also serve as a place for interpretive programs to be delivered. On many sites, the corral is the sensible place to put such amenities as water spigots and informational or interpretive signage. All corrals should provide some type of seating arrangement.

Siting the corral will also change depending on the peculiarties of the site, but there are two guidelines that should be followed on all sites:

1) The corral should have an obvious relationship to the FNST. This may mean that the FNST travels through the corral, a side trail originates in the corral, or the trail skims the edge of the corral.

2) The corral should be a front porch for the Trail experience that users must pass through to move from parking to the Trail. If the corral is sited properly, users will not need to pass through the parking area at all to access site amenities. Users should only need to walk into the parking area if they need to access a vehicle.

Expected Outcomes

• Families and other groups are comfortable and safe using trailhead sites

• More spatial definition created by this element helps the site feel as if it has an identity and contributes to a feeling of good spatial organization

• The corral concept is replicated and becomes an amenity that groups become familiar with from site to site

• Site users have positive associations with FNST sites as a result of supportive site design

• Branding provided within the corral brings increased awareness of the FNST on the site and usership potentially increases

• The corral fits into a cohesive site design, creating a more legible circulation pattern

• The site design feels intentional and organized.

SITE SCALE STRATEGIES: #7- LOUD ROAD CROSSINGS

http://www.elteccorp.com/images/Rural%20Bike%20&%20Pedestrian%20Crossing.jpg

A pedestrian activated crosswalk on a rural road includes signage and flashing lights. The system is a closed loop that is powered by small solar panels so infrastructure needs are low. This type of system could include FNST branding to bring more awareness to the Trail.

Explanation

One goal of the FNST building process is make Trail completely free of sections where users must walk alongside roads to connect the sections of Trail that already exist. This goal is entirely possible and will likely be achieved in the near future. However, it is impossible for the FNST to avoid crossing roads and therefore this is an experience that must be designed, for the FNST hiker as well as the motorist, to ensure safety. Pedestrian-car conflicts are a potential liability for the FNST as trail users must cross several major roads and highways to complete the Trail. Many of these roads likely have expanded and now accommodate a heavier flow of traffic than when the FNST route was decided through an area.
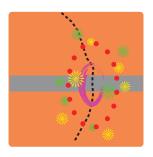
This creates a safety concern for all hikers, but families with small children and the elderly are particularly impacted. Mobility and speed are issues for many people but particularly the elderly and the very young that are coping with changing physical abilities. Children also may have less understanding of how to safely cross roads and their perception of automobile speed will not be as acute as that of an adult.

Another safety concern is for thru-hikers and other backpackers who often hike early in the morning around dawn and in the evening near dusk. Visibility is lowered at these hours, and the fully-loaded backpacker is a slower mover than they would be during the day. Without some sort of obvious road crossing system, hikers will be especially vulnerable at this time of day when visibility is reduced for both pedestrian and motorist.

The main goal is to keep people out of the road when it is unsafe to cross but also to make motorists aware that people are likely to cross the road in unexpected areas. However, if the road crossing is designed thoughtfully, it can be another element that will bring the FNSTs existence in the area to life. In this way, road crossings are not something that the designer must "deal with," rather they are an opportunity to increase the Trail's visibility and potentially peak the interest of a potential new user.

SITE SCALE STRATEGIES: #7- LOUD ROAD CROSSINGS

Therefore:

Make pedestrian road crossings, especially those near trailheads, obvious to drivers to ensure safety for trail users and also to increase visibility for the FNST.

Implementation

Safe road crossings should be a preventative measure; it should not come as a reaction to a tragedy that occurred because of a lack of design forethought. The level of design response should be gauged first by the amount of use the road gets and then by the expected amount of use the trailhead will get. Several devices may be employed to aid in safe road crossings including: crosswalks; raised crosswalks; pedestrian activated light signals; artistic gateways over the road; special paving patterns or road paintings in urban areas; and blinking warning signage.

Using signage is an important part of warning motorists that they may encounter pedestrians crossing roads, but more important, is making the crossing itself obvious. It should be noted, that the road crossing can be much more than only a white crosswalk on an asphalt road. The road crossing itself can become an artistic statement that draws attention to the FNST entity and also entices drivers to slow down and see what is there.

On state highways and other major thoroughfares it may be necessary to use devices such as a pedestrian activated crosswalk that will have flashing lights on signage for several hundreds of yards in either direction from the pedestrian crossing. In towns and cities, the road crossing should be an artistic expression contributed by Florida Trail Association volunteers or local artists and crafts

people that contributes to an urban trail's design. (see Strategy #3-Celebrate Urban Trails.) Where the trail crosses dirt roads, a simple pedestrian crossing sign or even no sign at all may be appropriate.

For all major road crossings warning signs should be incorporated 1/2 mile and again 1/4 mile before the pedestrian crossing in either direction. This signage should be separate from the hierarchy of signs described in Strategy #9-Hierarchy of Signs, so the fact that a pedestrian crossing is present is not lost in the communication of other information. Where the other signs may function like a period at the end of a sentence, the pedestrian crossing warning should be like an exclamation point because of the vital safety issue being communicated by the sign.

Trailhead informational signage and area map brochures should emphasize for the hiker that the trail section they are hiking on includes a road crossing. The crossing should be clearly indicated on maps so families and other groups know when to expect a road crossing so they may be highly aware of their children's location.

Expected Outcomes

• Clear communication makes FNST road crossings unsurprising to motorists and FNST users alike

• Pedestrian-automobile conflicts are not an issue on the FNST

• FNST road crossing serve as a marketing tool, raising awareness about the FNST to passing motorists

• Community engagement in designing and implementing road crossings results in greater awareness and stewardship for the FNST as a resource

SITE SCALE STRATEGIES: #8- SUPPORT ALTERNATIVE TRANSPORTATION

that alternative transportation is valid and encouraged. By supporting those users, the Trail can start to reach-out to address the United States' obesity-induced health epidemic. The FNST can set an example by promoting forms of transportation that encourage a healthy lifestyle while reducing our dependence on fossil fuels, and therefore lowering the costs of accessing the Trail.

By promoting the status of bicycle and pedestrian transportation options to the same level of importance of automobile transportation, the FNST can set an example among the National Scenic Trails by becoming a trail that is more social and ecologically sustainable.

Bicycles are a viable means for users to access a trailhead as shown in this photograph. This photo also show the need for bicyclists to have bike racks so they may lock their bicycles without having to worry about theft.

Therefore:
Design the site to accommodate people who will access the trail using an "alternative" form of transportation especially bicycling, walking, and public transit.

Explanation

Connecting users to the FNST by foot and bicycle, as described in Strategy #2 Arriving by Bike, must be tied to appropriate furnishings at the trailhead site. This means that if a bicycling or pedestrian option is offered to access the FNST, then bicyclists must be able to comfortably use FNST facilities.

By providing facilities that adequately accommodate pedestrians, bicyclists, and public transit users, a non-verbal message is sent to other users

Implementation

This pattern should correlate with Strategy #2- Arriving by Bike. If no safe bicycle infrastructure exists or is planned for the foreseeable future, bicycle amenities need not be included in the initial site design, but the design must allow for them tobe added in the future. Encouraging visitors to travel by foot or bicycle to a trailhead where no safe infrastructure exists could result in potentially dangerous interactions between cars and pedestrians or bicyclists.

If the distance users will travel to access the trailhead by bicycle is within 20 miles of an established community, bicycle facilities should be available on-site.

SITE SCALE STRATEGIES: #8- SUPPORT ALTERNATIVE TRANSPORTATION

This is less than a two-hour ride for most cyclists. Bicycle facilities should include secure bicycle racks, ramps for steep grade changes, and a seating area where they may stretch and cool down after the ride in. (See Strategy #6, The Corral)

Accommodating bus service will depend on whether routes currently run near the site and whether service may be feasible in the future. In populated areas, bus service is likely to already exist. In backcountry settings and along highways bus service is less likely. Creating a bus stop can be as simple as widening the shoulder to accommodate a bus and adding a bus stop sign and seating. In rural and backcountry settings, bus service may be less frequent, but if possible the site location should be chosen to link into a bus stop, or a side trail should connect to the bus stop. If a trailhead is located off of a nearby major road and bus service is offered on that road, a safe pedestrian route should be provided from the bus stop to the site.
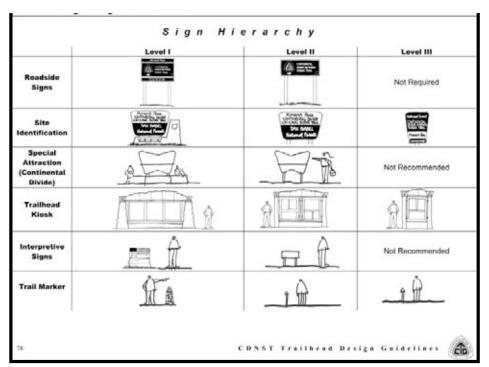
Footpaths between populated areas and trailheads may justify allowing camping at a trailhead site if the path is longer than 5 miles. Hiking to the trailhead gives users the potential to hike to the trailhead and use it as the first night's campsite for a multi-day trip. Local land managers and landowners must, of course, approve of the site being used for camping. If camping is to be accommodated, it is critical that water is available on the site. It is preferable that water would be accessed from a surface water source on the site. On sites that are pedestrian accessible, seating should be provided to accomodate a break between travelling to the trail and hiking on the trail.

If this pattern is successfully integrated to the design along with Pattern #2 Arriving by Bike, more users will likely use the Trail and less of them will drive cars to the site, which will allow trailhead sites to provide less parking, creating a smaller footprint of disturbance. The goal is not to make using a car more difficult, but to make site circulation safer for a bikes and pedestrians.

Expected Outcomes

• The FNST lowers its carbon footprint by encouraging users to access using alternative forms of transportation

• FNST users feel comfortable accessing trailheads on bike and leaving bicycles at trailheads because their needs have been accommodated

• People of wider age and socioeconomic ranges can use the Trail regularly because they are able to access it without an automobile

• The trailhead site becomes a safer, easier place to rest at and enjoy because more square footage has been devoted to people powered transit and human circulation

INFORMATIONAL/INTERPRETIVE STRATEGIES: #9- HIERARCHY OF SIGNS

The Continental Divide Trail Trailhead Design Guidelines outline a clear, simple, legible hierarchy of signs that take people from road to trail.
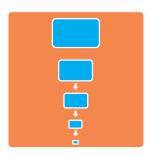
Explanation

An organized and legible system of signs will create a professional image for the FNST, the agencies that manage it, and local landowners. A consistent signage program will allow intentional FNST site and trail users to easily locate trailheads and access points while helping to reinforce the FNST brand.

Because many people pass by FNST sites daily without realizing that the sites exist, it is critical to have a signage system that will alert drivers to the proximity of the Trail to their daily lives. Clearly visible signage will help to increase awareness and interest in the Trail. Making trailhead locations clear will create a more positive experience for

trail users who will then share that experience with others.

A visible signage system will also make accessing sites more safe, as drivers will not have to make illegal traffic maneuvers to turn around to find return to turn-offs that they missed, fumble with maps that distract their attention from the road, or stop short to make a turn they almost missed. A good signage system will allow drivers to safely access trailheads while increasing public visibility and creating a more positive public image for the FNST.

Therefore:
Make trailhead locations obvious to returning and potential new users through a hierarchical organization of signage that ranges from road signs to informational kiosks.

Implementation

The signage program for the FNST should be comprehensive covering the engagement of local communities, road signage, trailhead signage, and on-trail signage. This pattern's explanation will present a superficial conceptual framework that will require further in-depth study and a design guideline document of its own. This segment of this document will discuss road signage and trailhead signage only.

Road Signage:

Trailhead Alert: These signs provide a warning ¼ mile before the turn-off from a major road into a trailhead site or onto a small road that connects to the trailhead site. All trailhead alert signs will include logos for the FNST, USFS, and the local land manager or owner as appropriate. For recreational hubs and waysides, these signs will include icons that represent amenities available on site and the trailhead name.

INFORMATIONAL/INTERPRETIVE STRATEGIES: #9- HIERARCHY OF SIGNS

Site Identification: These signs are located at either the entry to the site when it is directly on a main road, or at the intersection from a major road onto the secondary road where the trailhead is located. This sign may include a directional arrow in the case of a secondary road entry. On a major road entry, the sign will serve as a gateway to the site and will include the FNST name and logo, the site name, and depending on the level of site development, the local landowner's and/or land manager's name and the USDA Forest Service logo.

Site Signage:

Special Attraction Signs: At recreational hubs, community gateways, and waysides a sign should be present that celebrates the FNST and the recreational resources it embodies. This sign is the one in fornt of which trailhead visitors take photos with. This sign could be as simple as the traditional USFS butterfly signs, but it can also be an artistic expression from local community members. The FNST could engage the community to design and create these signs through contests or by approaching local schools to produce these as communal art project. This allows another way to market the trail to local communities and entice people to trailhead sites.

Trailhead Marker Posts: At primitive trailhead sites, a square cedar post with an orange stripe inset into the wood marks the entry. As these sites are often on smaller, slower roads, this understated signage will elegantly mark the entry driveway(s) in an understated manner while the orange strip serves as the FNST icon.

Informational/Interpretive Signage: Informational signage is presented on-site to educate site users about the Trail's statewide route, local route, safety concerns, critical contact information, and trail ethics. Interpretive signage is presented at community gateways, recreational hubs, and roadside waysides to teach incidental users and intentional users about the FNST, the local environment, and about the benefits of wildland recreation.

Trail Maker Posts: Similar to the Trailhead Marker Post, a square cedar post with an orange stripe inset into the wood marks the entry. For as side trail that leads to the main FNST corridor, a blue stripe will be used to distinguish it as a side trail.
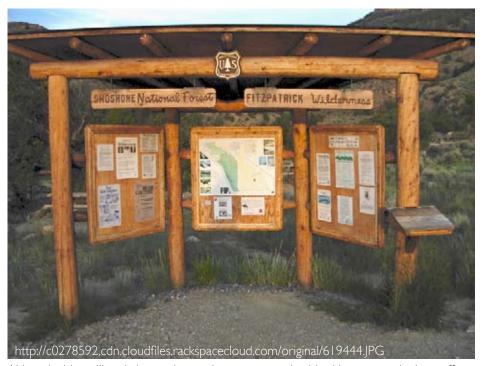
FNST Ground Marker: The ground markers are plates that are inset into the ground adjacent to the Trail Marker Posts. They evoke the idea of the USGS elevation markers found on the summits of mountains in the American West. The details must be further developed for this concept, but they will be approximately the size of a man hole cover and will have a design that evokes the spirit of the FNST. It may be standardized or may vary by site or region. The ground markers will serve as an iconic element, further developing the FNST image and brand.

This is a brief, conceptual sketch of how a hierarchical organization of signs will make accessing the Trail more simple and straightforward. Further design development work will be needed to implement this strategy, including coordination with highway officials and local land managers.

Expected Outcomes

• Wayfinding to the trailhead becomes simpler for road-users, making the experience of accessing the FNST easier and more efficient. This allows hikers to use their recreational time on the FNST and associated sites instead lost trying to find them.
• Awareness of the FNST is increased through incidental contact with road signage and curiosity about the FNST is created resulting in more users.
• The logical progression of information presented on site and signage placement makes sites more legible and comfortable to use.
• The flexibly replicated, site-specific signage system gives the FNST a consistent, professionally managed appearance which makes users feel more comfortable on site.

INFORMATIONAL/INTERPRETIVE STRATEGIES: #10- GET WITH THE TIMES!

http://c0278592.cdn.cloudfiles.rackspacecloud.com/original/619444.JPG

Although this trailhead signage is not the most organized looking system, it does offer a high amount of adjustability that is necessary in updating information.

Explanation

The content presented in informational and interpretive signage will only be useful and enticing if it is timely, with either contemporary or classic graphic styles. By presenting current information and imagery, signage connects directly to users' lives and needs.

To make visitors feel that their time is well spent while reading trailhead kiosk information and to make using the FNST more attractive, it is critical that information is delivered in a way that is graphically pleasing and up-to-date. Time constraints are one of the most difficult hurdles for potential users to negotiate, and wasting time with inaccurate information will leave them less interested in the resource presented to them, as they will have to seek out correct information after leaving the

site. If the information presented in a kiosk is incorrect, then users will have misconceptions about what opportunities are offered by the FNST. Likewise, if graphics and presentation style are dated, they will be unappealing to contemporary users.

Presenting accurate, timely information and interpretation in a professional package will enhance the overall experience on the site and the Trail by making the resource's level of oversight clear to the site's user.

Therefore:
Kiosks should provide current information in an attractive graphic format to communicate concise, accurate material to new and returning trail users. Kiosks should also provide a clear location for breaking news to be posted and removed on a regular basis.

Implementation

The wooden kiosk structure should accommodate an easy changeover of information while retaining a clean, professional image that is consistent with the USFS's rustic aesthetic. The bulk of information offered (i.e., safety information, maps, etc.) will not need to be changed regularly and should be presented on fiberglass panels that can easily be exchanged by FNST volunteers. A place should be provided for updates on Trail conditions, upcoming FNST events, and communications between hikers. Checking the accuracy of this information should be part of the scheduled maintenance checklist review. If information has become out-of-date, signage should be redesigned and updated as immediately as possible.

The temptation to staple paper to a bulletin board is strong because of its inexpensive price but doing this will diminish the FNSTs image greatly in terms of professional quality. For visitors to take time from their busy schedules to use this resource, it is critical that the resource's stewards take the time to welcome visitors properly. A well-designed kiosk with professionally produced

INFORMATIONAL/INTERPRETIVE STRATEGIES: #10- GET WITH THE TIMES!

graphics will help users feel comfortable with the idea of using the Trail; it will become a well-appreciated part of the Trail experience. The kiosks will have two levels of development: informational and interpretive. This pattern will engage the informational content presented on the kiosks:

ALL SITES will have an **ORIENTATION PANEL** to include:
• An area map that shows the FNST and significant spots from the previous trailhead through the next trailhead
• A chart showing distances and approximate hiking time to significant attractions
• Photographs of the immediate trail corridor
• An inset map of the FNST with significant locations and the current trailhead called out
• Description of safety issues and concerns
• Contact information for local land managers, FTA, USFS Florida Office, and local emergency contacts
• Information about user ethics and protocols
• A flexible space to post timely announcements and communications between hikers, such as a cork board or a small piece of plywood, approximately 18"x12"

ALL SITES will have a **FNST OVERVIEW** panel:
• Concise significance and history statements of the FNST
• A larger, more detailed FNST map with captioned photographs of significant features, unique flora and fauna called out in their particular regions of the FNST
• A discussion about resource protection for future generations and how this relates to resource ethics
• Information about how to get involved with the FNST including how to link into the Information Clearinghouse (see Pattern #12-Information Clearinghouse)
• A discussion about recreation opportunities provided by the FNST
• An explanation of the FNST blazing system

All Community Gateways, Roadside Waysides, and Recreational Hubs will have **AT LEAST one INTERPRETIVE PANE**L to include interpretation drawn from the interpretive themes described in Pattern #13-Interpret High Use Sites.

Expected Outcomes

• Users have obtained critical information including current Trail conditions, distances to landmarks, and safety information.

• Users enjoy learning about the current state of the FNST building effort, its future trajectory, its history, and the experiences it offers

• Users know where they can obtain more information about the FNST and local land managers

• Agencies and organizations that manage the site and the Trail have a professional image reflected by the information presented in FNST kiosks

• Volunteers can easily exchange panels in the kiosks to keep information as current as possible

• A flexible posting place allows managing agencies to communicate directly and in a timely manner with FNST users about local conditions, and also allows FNST users to communicate with one another

• Site users become aware of the FNST through incidental contact on the site

• Site users become interested in hiking the FNST and usership increases

• FNST users are aware of significant points along the immediate corridor of the FNST

• Sites have a professional appearance creating a positive image for the FNST & associated land managers

• Visitors are aware of the FNSTs significance in the statewide context of Florida's natural areas

INFORMATIONAL/INTERPRETIVE STRATEGIES: #11- INFORMATION CLEARINGHOUSE

www.facebook.com

Facebook, Wikipedia, and Craigslist and other websites offer an opportunity for users to easily connect with other site users and also a platform where information can easily be updated.

Explanation

Information that must be obtained from land managers and updated regularly should be made available in one easily accessible place. This may take the form of a hotline that gives options for listening to information on different areas. Preferably, a page on the stewarding organization's website that is easy to find from the main page will allow users to access information at any time. The information provided in the clearinghouse should include fees, contact information for land managers, downloadable maps and directions, and updates on trail (and other resource) conditions and closures.

Providing information that is specific in regards to fees and facility locations will help potential users to make decisions about where and how to enjoy leisure time. If specific information is not provided about fees, a potential user is left to make assumptions about costs and may decide to use other facilities or forms of recreation that are more familiar instead. Similarly, informing visitors about specific facility locations instead of giving a fast and dirty overview will help them to find facilities that are convenient to them.

Therefore:
Use FNST kiosks as part of a hierarchy of marketing materials, understanding that many site visitors may be learning about the FNST incidentally and for the first time while visiting a trailhead. The FNST kiosks should provide links to a free online information clearinghouse that will lead visitors to more obtain specific FNST information.

Implementation

Imagine the trailhead site and the kiosk in particular as an introductory marketing piece to the Florida National Scenic Trail, especially at the most developed sites—ie- Community Gateways, Roadside Waysides, and Recreational Hubs. These kiosks should present an introduction to the Trail at large and the immediate area of trail corridor for highly developed sites so they may give new visitors an overview of the resource. These kiosks should also give a link to a website that is an information clearinghouse for the FNST.

This information clearinghouse should be the intersection of a trail brochure or information packet, a social networking site, and an online

INFORMATIONAL/INTERPRETIVE STRATEGIES: #11- INFORMATION CLEARINGHOUSE

classifieds webpage. This means it will offer an overview of the FNST and more specific information for many sections. It will also allow users to post information and photographs about particular sections of the Trail and their experiences. Finally, it will allow users to network with one another to find hiking activities and new hiking partners. This will allow users to efficiently and easily plan visits to the FNST. This website should be completely free to use and not require membership or any dues to help to reduce the lack of discretionary income constraint. It may link into a third party website for marketing purposes but users should be able to find it without joining a third party website.The lack of discretionary income constraint can further be torn down by allowing free downloads of trail maps, narratives, and trailhead directions from this clearinghouse.

To help alleviate the lack of time constraint, this website should offer the most accurate updates of trail conditions possible and this information should also be available via a telephone hotline. This will help to reach users with various levels of technological savvy, which will reach across generational and socioeconomic lines. Offering these services in multiple languages would reach an even wider audience.

To serve new and returning visitors on the site, the trailhead-specific kiosks may offer a link directly to a page describing the surrounding Trail corridor's hike. In the age of smartphones and other transportable personal technologies, this is an easy way to invite the "plugged-in" potential user to see what lies ahead should they decide to take a walk on the FNST. These sites should include narratives but more importantly photographs and perhaps drawings or paintings of significant views.
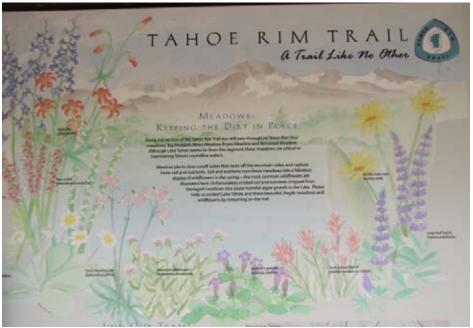
By providing a way to connect with the Trail in a format so familiar to younger generations, the FNST may set an example for blurring the line between people and nature. This use of technology could be become an enticement that can help many groups who may otherwise be unable to afford time or money to access in-depth information about the FNST.

Expected Outcomes

• Visitors are able to use FNST kiosks to find an online resource providing more in depth information about the trail than the kiosks can accommodate

• Potential new trail users are able to access information about hiking the FNST easily and free of cost

• Potential new trail users and returning hikers can network online to find group hiking opportunities and hiking partners that may help serve as more comfortable introductions to the FNST

• Visitors are able to find the most accurate, up-to-date possible Trail conditions information online or via telephone, before visiting a trailhead

• Users can easily share trail photos and comments about hiking experiences without having to join a third party website or pay any membership fees to an organization

• Interested potential users can access other trail user's stories and photos easily and for free, allowing them to experience firsthand interpretation of the Trail

• Non-local visitors can easily do preliminary trip planning

• Interest in the FNST and numbers of users increase due to ease of information gathering for the FNST

• New Trail stewards join the FTA

• More young people are engaged by an appropriate use of familiar technology

INFORMATIONAL/INTERPRETIVE STRATEGIES: #12- INTERPRET HIGH USE SITES

An interpretive sign along the Tahoe Rim Trail shows visitors what wildflowers they may encounter along their trip. The sign explains the effects that these plants have on the area's hydrology and explains the importance of Leave No Trace ethics.

Explanation

Several reasons exist for the FNST to have a comprehensive interpretive program. It should be noted that this pattern focuses explicitly on the interpretive offerings of the FNST to be presented at Community Gateways, Roadside Waysides, and Recreational Hubs and not on the informational content that should be offered at other sites.

Effective interpretation of the land will help foster a deeper understanding and appreciation of the landscape that visitors are standing within. For the many people who find themselves dislocated or isolated from undeveloped or rustic landscapes, it is of utmost importance to interpret the landscape to help garner a healthy respect for the land. In this way, interpretation can

enhance a visitor's experience on the FNST by helping them relate to what they are experiencing by understanding the history of human and non-human processes on the land.

By providing a consistent educational experience from site to site along the FNST, the sites give visitors an educational experience to look forward to when they return to hike in a new area. This will help to create a consistently professional image for land managers that help visitors to understand the agencies' missions in stewarding the land.

Therefore:
Interpret the landscape that the FNST travels through at trailhead locations that garner the highest levels of use, giving users a deep understanding of the land.

Implementation

With the goal of connecting visitors to their surroundings and garnering greater appreciation of the land's resources, four interpretive themes are important

Biodiversity: Florida is home to several dozen natural ecosystems that support an incomprehensibly large number of species (Whitney 2004). This theme interprets the flora and fauna unique to the area where the site lies and how they are dependent upon and simultaneously support the area. Information covered in this theme may also cover common invasive species in the area and their impact on native ecosystem, as it is understood.

INFORMATIONAL/INTERPRETIVE STRATEGIES: #12- INTERPRET HIGH USE SITES

Water & Earth: Topographic changes in Florida are often so subtle they are imperceptible to the human eye, and yet only 6 inches of elevation change can mean crossing the ecotones between different ecosystems. These subtle landforms are highly influenced by the movement of water through the land. As the FNST travels through the State it takes hikers through widely varied hydrologic systems from the Gulf of Mexico, to the blackwaters that originate in the Okeefenokee Swamp, around Lake Okeechobee, and through the swamps of southern Florida. This theme will discuss how the movement of water creates landforms and influences the ecosystems resulting from the confluence of water and earth.

People & The Land: In all parts of the world humanity's interaction with the land has dramatically changed land cover and the functioning of natural systems. In Florida in particular cattle ranching, phosphorus mining, silviculture, agriculture, and urban, suburban, and ex-urban development have created signatures of human use. This theme interprets the past and present human impacts and uses of the land while also speaking to potential future trajectories. Stories are told about why and how the land was used. The goals and potential impacts of future community development, conservation, and restoration efforts may be covered.

Outdoor Recreation for All: This theme may appear mostly in areas where the Trail runs through urban and suburban corridors. It will introduce users to the FNST and speak to the physical, mental, and emotional benefits of using passive recreation and experiencing undeveloped lands. The goal of this particular theme is to entice users to explore areas on the FNST further from their homes during extended periods of free time such as weekends and vacations, and to encourage them to return to the FNST and other nearby urban trails for regular recreation.

These themes can all stand alone and each could easily take up an entire panel in a particular area. However, the strongest interpretive panels may be the ones that combine two or more of the above themes to cover issues such as restriction of water migration for agricultural and urban development or the impacts of human recreation on biodiversity.

All interpretation offered should refer to Freeman Tilden's Six Principles as discussed in his watershed book on the topic *Interpreting Our Heritage* (1957).

1. Any interpretation that does not somehow relate what is being displayed or described to something within the personality or experience of the visitor will be sterile.
2. Information, as such, is not Interpretation. Interpretation is revelation based on information. But they are entirely different things. However, all interpretation includes information.
3. Interpretation is an art, which combines many arts, whether the materials presented are scientific, historical, or architectural. Any art is to some degree teachable.
4. The chief aim of Interpretation is not instruction, but provocation.
5. Interpretation should aim to present a whole rather than a part, and must address itself to the whole person rather than any phase.
6. Interpretation addressed to children (say, up to the age of twelve) should not be a dilution of the presentation to adults, but should follow a fundamentally different approach. To be at its best it will require a separate program.

Expected Outcomes

• Site users understand the role that the USFS and local land managers have in interpreting and conserving the landscape
• Site users come away with a basic understanding of the interpretive themes as they relate to the land directly around them
• Visitors develop a deeper awareness and understanding of their direct surroundings and what they may experience on a FNST hike
• Interpretive exhibits encourage a respectful ethic towards the land

REFLECTIONS

The design strategies offered in this study provide a departure point for the design of FNST trailheads. The main goal of these design strategies is to support a quickly diversifying population, and to entice and support a wide social spectrum of the American population in terms of race, ethnicity, gender, and age. Because these patterns were derived from observations made on the case study sites, it is possible that analysis of other sites may lead to the creation of more design strategies. Expanding the strategy set to include more patterns would certainly add more depth and variety to trailhead designs.

This set of strategies, much like Alexander's patterns, work best when grouped in families. The groupings are what makes them a "pattern language." When combined, words form a sentence and eventually a language. In the same way, striging together the strategies in a logical way then creates a cohesive design. The intention of each of the patterns that are used together should be similar. For example, the following strategies are used together to form a pleasing urban trail experience:

PATTERN #1- COMMUNITY TRAILHEADS
PATTERN #2 - ARRIVING BY BIKE (OR FOOT)
PATTERN #3 - CELEBRATE URBAN TRAILS
PATTERN #8 - SUPPORT ALTERNATIVE TRANSPORTATION

The design strategies presented here have varying levels of difficulty in implementation. Some, such as *#2-Arriving by Bike (or Foot), and #3-Celebrate Urban Trails* will involve an intense level of interagency communication and cooperation as well as community involvement. Where as site design concepts, such as *#6-The Corral and #8- Support Alternative Transporation,* will involve collaboration between land managers and representatives for the FNST. This may imply a hierarchy for the implementation of the strategies, but it should be noted that strategies #2 and #8 work in conjuction with one another and make little sense when they are implemented individually.

While these strategies provide a conceptual starting place for the design process based on the values of democratizing the trail experience and reaching out to wide

audiences, they do not speak to the poetic potential of a good trailhead design. In Chapter 4, a redesign of the Ft. Pickens site and an original design for the Keystone trailhead are presented using the FNST Trailhead Design Strategies as a framework for the design process. This chapter will give the reader an understanding of how the strategies appear in the physical environment. Suggestions are made for the strategies to be applied at each of the three scales discussed previously (planning, site, and information/interpretation).

The design strategies fit into a larger context of designing the outdoor recreation experience based on the goal of engaging new resource users through the strategies of sparking user interest, increasing the resource's accessibility, and creating a good trailhead experience. The following diagram groups the design strategies along with other strategies that should be incorporated to achieve the goal of providing a recreation experience for diverse users.

Figure 28- The design patterns combined with marketing and outreach efforts will help draw and retain a larger and more diverse group of trail users.

CHAPTER 4:

DESIGN PATTERNS APPLIED-- REINVISIONING FT. PICKENS AND KEYSTONE

"Art is born of the observation and investigation of nature" ~Cicero

CHAPTER 4:
DESIGN PATTERNS APPLIED--RETHINKING FT. PICKENS and KEYSTONE

Design Approach and Process

The design approach and process for these sites is directed by the site and constraints analysis, the FNST Trailhead Design Strategies, and a traditional landscape architecture design process that includes a vision for the visitor use sequence, precedent studies, and critiques and reviews made by peers and University of Oregon faculty. After further defining the recreation constraints in the literature review, an analysis of the five case study sites was performed, using the nine constraints (lack of awareness, lack of time, fear of violence/discrimination, etc.), as identified in Chapter 1, pages 31-32, as an analytical lens. From this investigation, a set of "anti-patterns" was developed.

The FNST Trailhead Design Patterns were then developed to address the anti-patterns--lessening the impact of the constraints' physical manifestations as identified on the sites. The strategies are a set of conceptual elements that will guide the design process as demonstrated in the redesign of two sites in this chapter.

By combining the design strategies with a set of aesthetic and practical design intentions conceptual designs for two of the five case study sites have been developed. The strategies were chosen for each site based on the needs of that particular site (i.e., Loud Road Crossings at Keystone because the trail crosses a busy highway very close to the trailhead). It should be noted that each site may not need to engage each design strategies and that each site will have its own set of constraints and issues that need to be addressed with site-specific designs. The designs presented here show how the Design Patterns may be manifested in physical form at the end of the conceptual stage of the design process. Between Ft. Pickens and Keystone several strategies are repeated but their physical forms will vary according to the needs of the sites.

About the Re-Design Sites

Of the five sites used for the constraints analysis, Ft. Pickens and Keystone were chosen for conceptual redesigns using the FNST Trailhead Design Patterns. These two sites were chosen for redesign because they are on opposite ends of the spectrum in terms of their levels of development. Ft. Pickens is already a highly developed site because of the existing historical fort on the site and is a major tourist & educational attraction in the area. The Keystone site, however, must function independently as the major attraction on that site is the FNST.

These sites also contrast in terms of the likelihood that incidental (or unintended) contacts with new audiences will occur. As Ft. Pickens already has another attraction on the site, potential new users are more likely to discover it. The Keystone Trailhead's location is more likely to serve the local community and so users will be accessing with the specific intention of hiking on the FNST.

Ft. Pickens and Keystone do, however, have several existing conditions in common. Both sites currently require users to access the Trail by using an automobile. Visibility of the FNST is low or non-existent on both sites. Neither site currently offers accurate information or interpretation. In the communities near both Ft. Pickens and Keystone, the FNST has a limited presence. For more in-depth analysis of case study sites, see Chapter 2.

REDESIGN-OVERVIEW

Design Intentions

Despite the obvious differences in the level of development needed on these sites as well as their physical contexts, the design intent for Ft. Pickens and Keystone share several similarities. These intentions should apply to all FNST trailheads:

•To create a positive, coheasive image throughout the FNSTs sites that espouses the values of USFS and local land managers

•To make the FNST's presence stronger in nearby communities

•To encourage users to access the sites without the use of an automobile

•To create a feeling of "welcomeness" on the site; a comfortable launching point and landing pad for the trail experience

•To build sites that are contextually responsive, emphasizing the Trail experience and the site's setting

•To create a site design that is light, organized, simple and legible; allowing flexibility so the site may be easily changed in the future if the level of development should need to change

•To provide intimate, informal seating and gathering opportunities to encourage the use of the Trail by individuals as well as groups

•To orient the user to the entire FNST and also to the immediate context of the area they will be hiking through

•To create a comfortable transition between the Trail's predominantly primitive environs to more developed areas for site visitors and FNST hikers.

In addition to the above list, the Ft. Pickens site has some unique design intentions:

•To create a visible and memorable trailhead kiosk with a high level of presence while respecting the historic integrity and avoiding interruption of key views to Ft. Pickens

•To introduce visitors to other local outdoor recreation opportunities

•To interpret the overall FNST experience for those who have never heard of it

•To interpret the ecological qualities of the immediate area through which the FNST will travel

photo by Anya Dobrowolski

Existing FNST Ft. Pickens Trailhead

photo by Deb Blick, Florida Trail Association

Longleaf pine forest restoration at the Keystone Trailhead. The Keystone Trailhead is yet to be developed.

FT. PICKENS DESIGN PROPOSAL- PLANNING SCALE PROPOSALS

Ft. Pickens is considered a Recreational Hub in FNST Trailhead Typology. (See page 43) It will have the highest level of development, especially because it is a site that already sees a high level of visitation.

Planning Scale Proposals

Getting people to Ft. Pickens and raising awareness of the FNSTs existence in Pensacola are the main objectives of the planning scale design decisions. In nearby towns the FNST passes through, urban art and history trails are proposed to engage tourists as well as the local population. The future ferry from Pensacola to Ft. Pickens will connect to a community trailhead at a local library or park in Pensacola to bring the FNST to life in the city. Enhancements of the roadside wayside at Opal Beach and the community hub of Navarre are also suggested.

http://www.urbanarttrail.com/images/boxes/14.jpg

An simple urban art trail installation in Indianapolis features utility boxes as murals. These elements are a component of the larger urban art trail.

Planning Scale Strategies Used

1 Community Trailheads
For the Ft. Pickens site community trailheads are proposed in Navarre and Pensacola. As there is already a kiosk existing in Navarre, the proposal is that it should offer current information and interpretation about the area. While picnic and bathroom facilities currently exist at Opal Beach, it is suggested that FNST kiosks and other amenties are installed to increase FNST visibility and branding on the site. The trailhead in Pensacola should link in with the Ferry Service that will be offered. As the NPS has envisioned that eventually the road to Ft. Pickens will be inaccessible, it will be critical that the launch point for the ferry is looked upon as the terminus for the FNST when the road closure becomes a reality. For the time being, a community hub, such as a public library or park should be used as a site for an FNST kiosk that would eventually be the trailhead for a trail that would take users to the ferry.

2 Arriving by Bike (or Foot)
Ft. Pickens Road is already a comfortable road for bicyclists to use in accessing Ft. Pickens from the surrounding community; no new bicycle facilities are proposed.   In the future, the ferry from Pensacola will offer the only access to the site. It is highly encouraged that the ferry be free or of a nominal cost to encourage a range of economic levels to use this site.

3 Celebrate Urban Trails
Art & history trails are proposed where the trail is on hardened trails such as sidewalks and bike paths in the area. These areas include Pensacola Beach and Navarre, and the trail that will eventually lead from a Pensacola community trailhead to the ferry site.

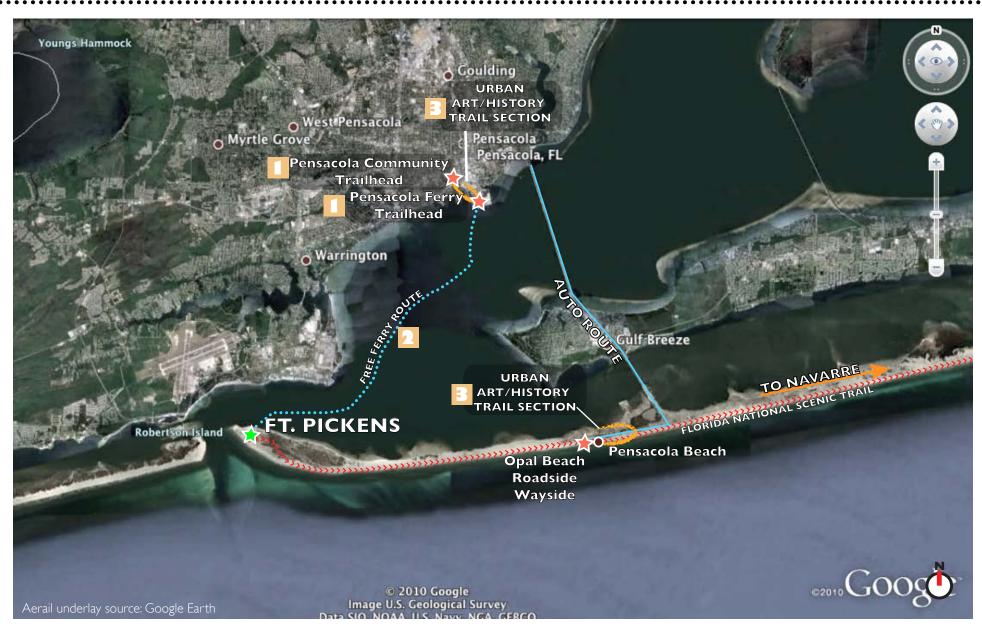# FT. PICKENS DESIGN PROPOSAL- PLANNING SCALE PROPOSALS

Figure 28- Planning scale design decisions for the Ft. Pickens Trailhead include the installation of art/history interpretive trail sections through Pensacola Beach and Navarre, development of new community trailheads in Pensacola and enhancement of trailheads at Opal Beach, and Navarre, as well as support of the NPSs plans for a ferry to Ft. Pickens.

FT. PICKENS DESIGN PROPOSAL- SITE DESIGN PROPOSALS

Site Design

A linear design is applied on the Ft. Pickens site to pull visitors into the trail. A small seating area is located at the trailhead entry along with a cairn sculpture and a bronze plaque commemorating the entry to this very special Trail. Seatwalls of cast concrete mimic the seawalls already present in the area. Long seatwalls are staggered with the informational kiosks, creating edges for the Trail itself. A ground marker at the northern edge of the trailhead area behaves as a threshold, leading the eye and the foot through the kiosk area and towards the Trail.

photo by Anya Dobrowolski

Existing FNST Ft. Pickens Trailhead kiosk

Site Scale Strategies

4 Cluster Site Amenities

The trailhead and kiosks have moved south towards the main fort structure to help create a more cohesive deisgn to the oveall site. This creates an edge on the north side of the main attraction and groups the FNST with the fort. A side trail off the main circulation path from the parking area to the trailhead leads users toward the FNST trailhead without obstructing iconic views towards the fort.

5 Build for Low Maintenance

The trailhead has very few structures; these structures are built with low-maintenance materials. The seatwalls are made from concrete that is meant to age and eventually wear similarly to the nearby seawalls, and will require no maintenance. The kiosk structures are made of cedar so they are less susceptible to waterdamage; the roof overhangs and native trees planted across from the kiosks protect panels from sun damage. The kiosks are designed so panels can easily be removed and replaced during or after a storm event.

6 The Corral

The corral on this site is a modest, small (~100sq. ft.) seating area with smaller sections of seatwalls. The area is informal and has a light touch with a modest sculpture of a limestone cairn and no paving.

8 Support Alternative Transportation

The site supports visiting bicyclists by providing a bike rack at the entry circulation, seating in the corral, and sun and wind protetion by the kiosks structures. The bike rack should remain on site even after Ft. Pickens Road is out of use to encourage visitors to access the ferry by bicycle.
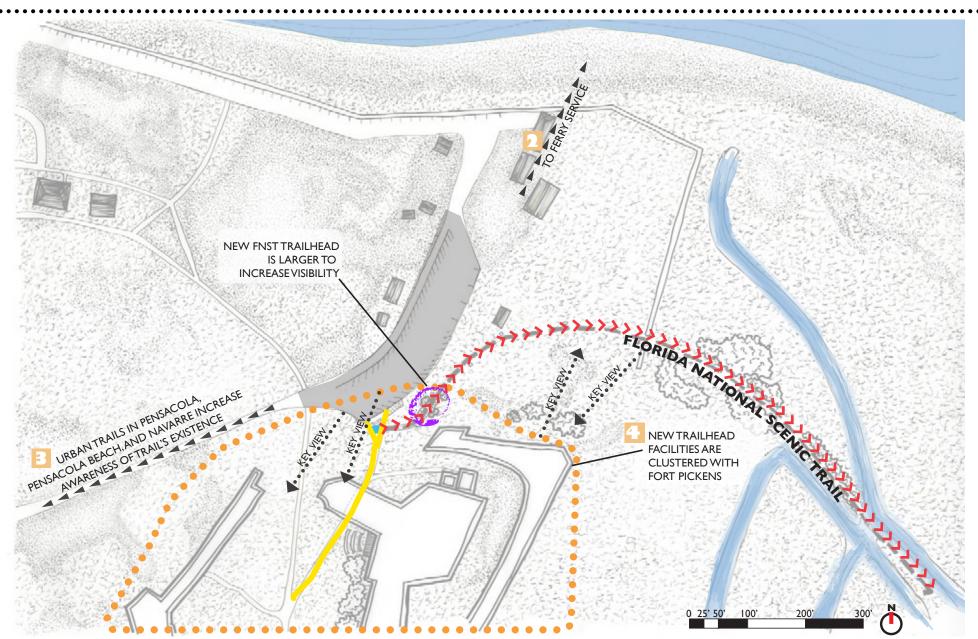
FT. PICKENS DESIGN PROPOSAL- SITE DESIGN PROPOSALS

Figure 29- Site scale design patterns at Ft. Pickens aim to support family use of the site while increasing visibility of the FNST. To increase awareness of the FNST and the trailhead, the trailhead has been sited to have a closer relationship with the fort while preserving key views to and from the fort.
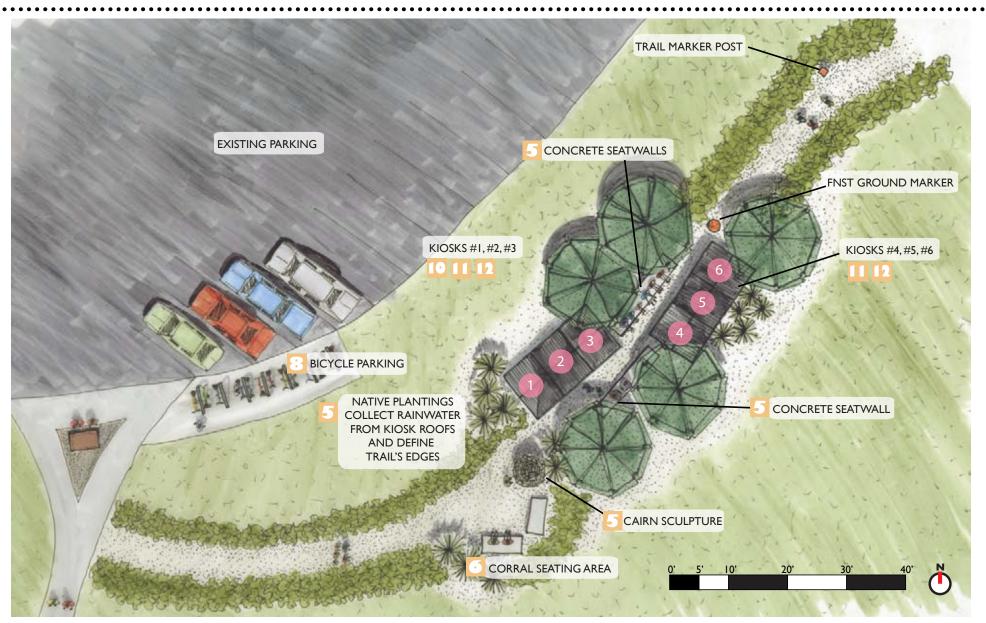
FT. PICKENS DESIGN PROPOSAL- SITE DESIGN PROPOSALS

Figure 30- The site design includes bicycle parking, an informal seating area with a sculptural cairn, and other seatwalls that face the informational and interpretive kiosks. The concrete seatwalls are a modern play on the existing seawalls on the site but are distinguished from the historic seawalls by stamped concrete patterns that evoke hiking and wildlife scenes. These less formal seating areas fill a gap in the exisiting furnshings at Ft. Pickens, allowing visitors a place to rest before or after their visit to the fort while providing an introduction to the FNST.

FT. PICKENS DESIGN PROPOSAL- INFORMATION AND INTERPRETIVE PROPOSALS

Informational and Interpretive Strategies

Six informational and interpretive panels arranged in two groups line the entry corridor of the Trail. A butterfly roof is used to guide water in rain events into native planting beds. Information on the panels includes an introduction to the FNST, orientation to the area, and interpretation about the local area's ecological qualities.

10 Get with the Times

Two kiosk structures will be devoted to informational communication. These kiosks will consist of two categories: 1) General FNST information and 2) Local area information.

Kiosk #1 to include:
•FNST map
•Brief, concise FNST history/description
•Drawings or photographs of particularly scenic & iconic FNST areas
•Information about how to get involved with volunteering on the FNST
•A link to the FNST website
•Leave No Trace information

Kiosk # 2 to include:
•Local area map showing the trail from Ft. Pickens to Opal Beach
•A list of local area hiking destinations with hiking mileage
•Information about other local outdoor recreation opportunities
•Web address for the Information Clearinghouse website
•Area specific safety and local contact information
•A small cork or plywood panel to be used as pin-up space for time-sensitive flyers

11 Information Clearinghouse

The local area hiking information presented on the kiosks should serve as an introduction to the opportunities available locally on the Trail. There should also be a web address offered on the signage that links to a website that talks in deeper depth about the Gulf Islands National Seashore section of the FNST. This site should include photographs of the area and stories from hikers who have hiked the area as well as ideas for day hikes and backpacking trips. This website should allow visitors to upload photos directly from mobile personal technology devices such as smart phones. Similarly, the website should be formatted to be accessible by computer and on smart phones as some users may desire to access information while at the trailhead site.
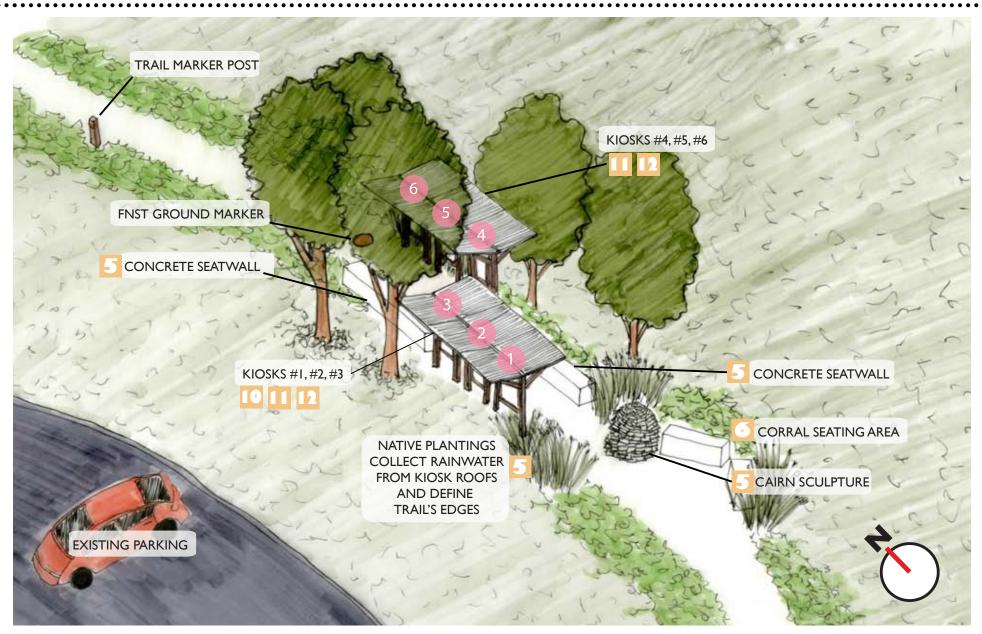
FT. PICKENS DESIGN PROPOSAL- SITE DESIGN PROPOSALS

Figure 31- Axonometric view of the Ft. Pickens Trailhead design proposal. Butterfly roofs guide stormwater runoff into native plantings while the trail corridor is defined by native plantings and FNST site furnishings. The cairn is made from native limestone chips and may contain a plaque commemorating the place.

FT. PICKENS DESIGN PROPOSAL- INFORMATION AND INTERPRETIVE PROPOSALS

The approach to the corral seating area and kiosks at. Ft. Pickens.

FT. PICKENS DESIGN PROPOSAL- INFORMATION AND INTERPRETIVE PROPOSALS

12 Interpret High Use Sites

Because Ft. Pickens is a high use area, all of the interpretive themes will be explored at the trailhead. The interpretive communication will be executed in an integrated manner as the panels explore the ecological, historical, and experiential dimensions of hiking in the area.

Kiosk # 3 to include:
•"Thru-a-Hiker's Eyes," a panel that tells the story of a thru-hiker finishing their trip on the FNST and travelling through the Gulf Islands National Seashore Area
•Stories offered may include the number of days it took to complete the thru-hike and some favorite spots explored by the hiker throughout the state
•The panel should also include photos taken by and of the hiker in the area along with descriptive captions
•A discussion of motivations for thru-hiking the FNST and the benefits received as a result of involvement in outdoor recreation should be woven throughout the panel
•Local area stories should include where they camped while hiking along the seashore, any significant and/or humorous events or wildlife viewings that may have occurred while hiking the local area
•This kiosk should be a collaborative effort between the hiker telling the story verbally and the designer communicating it graphically

Kiosk #4 to include:
•A description of the geological structure of Ft. Pickens with graphics showing how the spit it sits on was created. A diagram showing these processes should be included
•Cross sections of the spit, cut through the Ft. Pickens site, will show the way the structure has changed over the years due to weather-induced and human processes
•A discussion about how the dynamic geological and weather conditions in the area impact structures such as Fort Pickens will introduce ideas about how phenomena, such as climate change, may impact the area. Diagrams showing potential future trajectories for the site will be offered

Kiosk #5 to include:
•More specific information about the dunes that hikers will hike through and along throughout Gulf Islands National Seashore
•Interpretation offered will discuss their structure and the services they provide to local ecosystems
•Flora and fauna commonly encountered in the area will be displayed on a diagrammatic painting or other graphic representation of a dune. Two sentences or less will be used to describe how each of these plants and animals relate to the ecosystem
•Information about how to conserve the dunes as hikers, local residents, and volunteers should be offered for those interested in getting further involved in dune conservation efforts

Kiosk # 6 to include:
•A description and depiction of a day in the life of a Santa Rosa Beach Mouse, one of the dunes threatened species
•Verbal interpretation and graphics offered will include:
    -How they use the dunes, and in particular their elaborate tunnel systems
    -Mating habits which are similar to those of humans
    -Threats to the species as a result of human interactions with the dunes
    -What visitors and local residents can do to help promote the health of their population

In addition to the interpretive panels, the seatwalls have designs that reflect the information/ interpretation offered on the panels stamped into their vertical surfaces. Some will have images of local wildlife and plants while others will have silhouettes of hiking scenes. The plantings around the trailhead area offer another, subtler, interpretive opportunity as they will include several of the plants discussed on Kiosk #5.

FT. PICKENS DESIGN PROPOSAL- INFORMATION AND INTERPRETIVE PROPOSALS

View from the parking lot to the FNST trailhead. Informational and interpretive kiosks introduce visitors to the trail experience while also acting as a structural element to define the trail's edges.

FT. PICKENS DESIGN PROPOSAL--STRATEGIES EMPLOYED & CONSTRAINTS ADDRESSED

	Strategy	Constraints		Strategy	Constraints
	COMMUNITY TRAILHEADS	-Lack of Awareness -Lack of Interest		**BUILD FOR LOW MAINTENANCE**	-Lack of Interest -Fear of Violence/Discrimination -Disapproval of Activites Encoun.
	CELEBRATE URBAN TRAILS	-Lack of Awareness -Lack of Interest -Poor Health/Body Image -Lack of Automobile -Lack of Discretionary Income -Lack of Time		**SUPPORT ALTERNATIVE TRANSPORT.**	-Lack of Automobile -Lack of Discretionary Income -Lack of Time
	ARRIVING BY BIKE (or FOOT)	-Lack of Automobile -Lack of Discretionary Income -Lack of Time		**GET WITH THE TIMES**	-Lack of Interest -Lack of Time -Fear of Violence/Discrimination -Disapproval of Activites Encoun.
	CLUSTER SITE AMENITIES	-Lack of Awareness		**INFORMATION CLEARING-HOUSE**	-Lack of Awareness -Lack of Interest -Lack of Time -Fear of Violence/Discrimination -Disapproval of Activites Encoun. -Poor Health/Body Image
	THE CORRAL	-Lack of Interest -Lack of Automobile -Lack of Discretionary Income -Fear of Violence/Discrimination -Disapproval of Activties Encoun. -Poor Health/Body Image		**INTERPRET HIGH USE SITES**	-Lack of Interest

Table 3- Matching strategies and constraints addressed at the Ft. Pickens Recreational Hub.

FT. PICKENS DESIGN PROPOSAL--STRATEGIES EMPLOYED & CONSTRAINTS ADDRESSED

The corral offers an informal seating area as well as a place for intimate interpretive discussions.

KEYSTONE DESIGN PROPOSAL- PLANNING SCALE PROPOSALS

Keystone is considered a Semi-Primitive Trailhead in FNST Trailhead Typology. (See page 43) because the FNST is the only amenity to be accessed from the site. This means it will have the lowest level of development of any in the spectrum.

Planning Scale Proposals

Visitors may arrive at the Keystone Trailhead by bicycle or car. By car, they would use SR-100 and turn onto SE 75th St; by bicycle users would leave the town of Keystone Heights on the PLBST and turn onto SE 75th St to access the trailhead. Visitors also have the option of taking an urban side-trail to access the FNST from Downtown Keystone Heights that originates at a community trailhead at the Clay County Library and links to the PLBST.

Planning Scale Strategies

1 Community Trailheads

For the Keystone site a community trailhead is proposed at the Clay County Library in downtown Keystone Heights. The trail coming from this trailhead will link into the PLBST which may be designated as a side or connecting trail for the FNST. The Clay County Library trailhead will offer signage with general information about the FNST and more specific information about area hiking opportunities.

2 Arriving by Bike (or Foot)

By linking the PLBST and the FNST, visitors will have the opportunity to access the FNST from downtown Keystone Heights without having to rely on an automobile.

3 Celebrate Urban Trails

An art & history trail is proposed along the Trail section that would connect the community trailhead at the Clay County Library to the PLBST. This section of trail extends several blocks from the library to SR-100 in downtown Keystone Heights where it links in with the PLBST, that eventually leads to the FNST at the Keystone Trailhead.

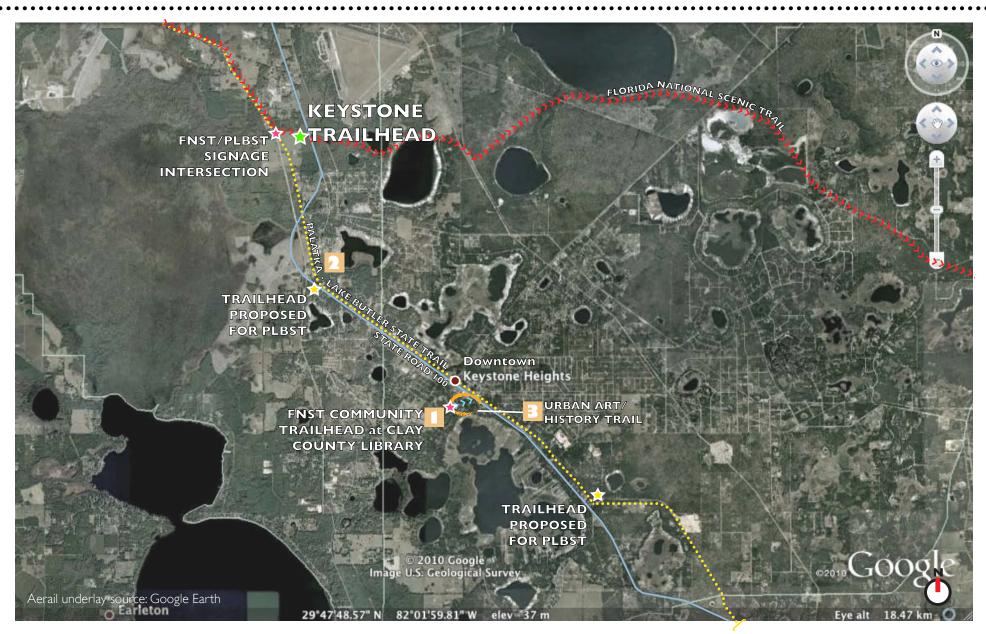# KEYSTONE DESIGN PROPOSAL- PLANNING SCALE PROPOSALS

Fig. 32 - Planning scale design decisions for the Keystone Trailhead include the installation of an art/history interpretive trail sections through downtown Keystone Heights to include a community trailhead, and the promotion of the Palatka-Lake Butler State Trail as a side trail that can be used to access the Keystone Trailhead by foot or bicycle.

KEYSTONE DESIGN PROPOSAL- SITE DESIGN PROPOSALS

Site Design

The trailhead site is chosen to be approximately halfway between the rancher's home to the west and SR-100 to the east. This site was chosen to allow the ranch family an easy view towards the trailhead while still providing them with privacy. Parking is available at the trailhead for four cars and eight bicycles. The parking area is a simple pull-through style with the corral area leading to the Trail at the north side of the trailhead. Stormwater runoff from the road and parking area is mitigated in a swale with low-growing native plantings. The corral and kiosk area is less than 150 sq. ft. and includes minimal furnishings. The corral is furnished with three benches, a marker-post and ground marker orient visitors towards the Trail and three log benches capable of accommodating nine adults. The benches are arranged informally around a central open area. Two kiosk structures are arranged to form a threshold that users cross to access the corral. The kiosks' shed roofs are one-sided, allowing water to drain into the planted area behind the kiosks.

The corral is three log benches surrounding a small open area. The corral serves as a transition space between the less developed space that is the FNST and the developed trailhead. A trail marker post signals the entry point to the FNST.

Site Scale Strategies

5 Build for Low Maintenance

The trailhead has very few structures; these structures are built with low-maintenance materials. The kiosk structures and log benches are made of cedar so they are less susceptible to water. The overhangs from the kiosk roofs protect and nearby vegetation protect informational panels from sun damage. The kiosks are designed so panels can easily be removed and replaced.

6 The Corral

The corral on this site is a modest (~200 sq. ft.) seating area with benches and two informational kiosk structures. The kiosks are placed so as to create a gateway, communicating non-verbally the Trail entry point. A ground marker at the northern edge of the corral behaves as a threshold, leading the eye and the foot towards the Trail.

7 Loud Road Crossings

At the intersection of SE 75th St. & SR-100 a pedestrian activated blinking warning signage system will be installed that would alert drivers of a pedestrian's presence from ½ mile before the crossing. A crosswalk with mid-point resting place and blinking signage will be installed at the intersection as well.

8 Support Alternative Transportation

The site supports visiting cyclists by providing a bike rack within the parking area, directly across from the corral that can support eight bicycles. This bike parking area could be expanded in the future if needed.

KEYSTONE DESIGN PROPOSAL- SITE DESIGN PROPOSALS

9 PEDESTRIAN CROSSING SIGN- 1/2 MILE
TRAILHEAD ALERT SIGN-1/4 MILE

FLORIDA NATIONAL SCENIC TRAIL

STATE ROAD 100

SIDE TRAIL
CONNECTS
TRAILHEAD
TO FNST

9 SITE IDENTIFICATION SIGNAGE

2 TO PALATKA LAKE BUTLER STATE TRAIL
(BIKE ROUTE FROM KEYSTONE HEIGHTS)

9 SITE ENTRY
MARKER POSTS

TRAILHEAD LOCATED
HALF-WAY BETWEEN
RANCH LAND AND SR-100
TO ALLOW FOR RANCHER'S
PROSPECT AND PRIVACY

7 PEDESTRIAN
ACTIVATED
ROAD
CROSSING

9 PEDESTRIAN CROSSING SIGN- 1/2 MILE
TRAILHEAD ALERT SIGN-1/4 MILE
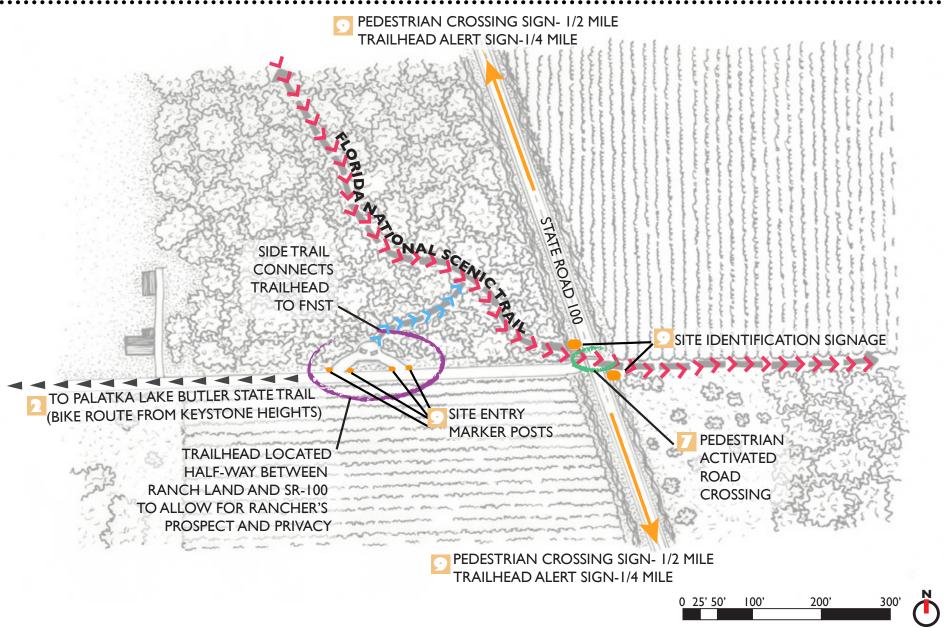
0 25' 50' 100'   200'   300'

N

Fig. 33 - The Keystone Trailhead is sited to provide both privacy and prospect over the site by the adjacent ranch family's property. A pedestrian activated crosswalk links into the hierarchy of signage to increase visibility for the FNST. A side trail connects the parking and corral area to the main FNST corridor.

KEYSTONE DESIGN PROPOSAL- INFORMATION AND INTERPRETIVE PROPOSALS

9 Hierarchy of Signs

A system of signs will inform automobile users on SR-100 of the FNST's nearby presence by gradually introducing more information as drivers approach the site. The signs will be placed as follows:

Pedestrian Crossing- ½ mile before SE 75th St. & SR-100 and at the intersection itself, includes pedestrain activated blinking lights

Trailhead Alert- ¼ mile before SE 75th St. & SR-100

Site Identification- at the intersection of SE 75th St. & SR-100 and at the intersection of the PLBST and SE 75th St..

Site Entry Sign- trail marker posts at the entry to the site from SE 75th St.

Informational Signage- at the entry to the corral and trail adjacent to the trailhead parking lot

Informational & Interpretive Strategies

10 Get With the Times

Two kiosks structures will be devoted to informational communication. These kiosks will consist of two categories: 1) General FNST information and 2) Local area information.

The local area hiking information presented on the kiosks should serve as an introduction to the opportunities available locally on the Trail. There should also be a web address offered on the signage that links to a website that talks in deeper depth about the Big Bend area of the FNST in which the Keystone Trailhead sits within. This site should include photographs of the area and stories from hikers who have hiked the area as well as ideas for day hikes and backpacking trips. This website should allow visitors to upload photos directly from mobile personal technology devices such as smart phones. Similarly, the website should be formatted to be accessible by computer and on smart phones as some users may desire to access information while at the kiosks.

Kiosk #1 to include:
•FNST map
•Brief, concise FNST history/description
•Drawings or photographs of particularly scenic & iconic FNST areas
•Information about how to get involved with volunteering on the FNST
•A link to the FNST website
•Leave No Trace information

Kiosk # 2 to include:
•Local area map showing the trail from the trailhead west of Keystone (Lake Butler) to the closest trailhead to the east (Goldhead Branch State Park). This map should also include the PLBST.
•A list of local area hiking destinations with hiking mileage
•Web address for the Information Clearinghouse website
•Information about other local outdoor recreation opportunities
•Area specific safety and local contact information
•A small cork or plywood panel to be used as pin-up space for time-sensitive notices

11 Information Clearinghouse

The local area hiking information presented on the kiosks should serve as an introduction to the opportunities available locally on the Trail. There should also be a web address offered on the local area signage that links to a website that talks in deeper depth about this and other longleaf pine restoration areas along the FNST. This site should include photographs of the area and stories from hikers who have hiked the area, as well as ideas for day hikes and backpacking trips. This website should allow visitors to upload photos directly from mobile personal technology.
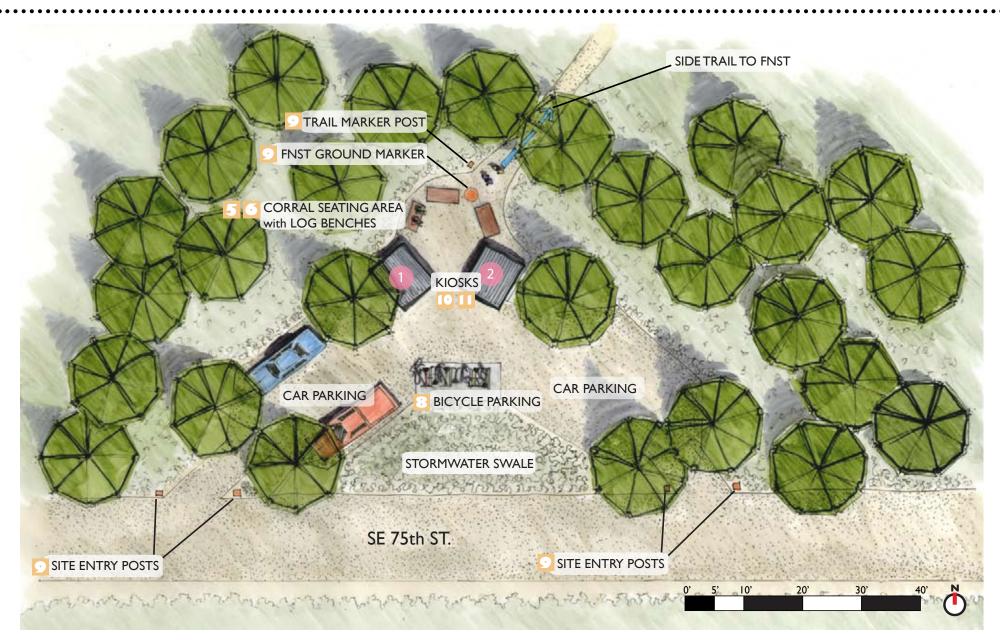
KEYSTONE DESIGN PROPOSAL- SITE DESIGN PROPOSALS

SIDE TRAIL TO FNST

9 TRAIL MARKER POST

9 FNST GROUND MARKER

5 6 CORRAL SEATING AREA
with LOG BENCHES

1   KIOSKS   **2**
10 11

CAR PARKING

8 BICYCLE PARKING

CAR PARKING

STORMWATER SWALE

SE 75th ST.

9 SITE ENTRY POSTS

9 SITE ENTRY POSTS

0'   5'   10'   20'   30'   40'

N

Fig. 34 - The Keystone Trailhead includes parking for four automobiles and eight bicycles to encourage local users to access the trail using the Palatka-Lake Butler State Trail. A swale with native plantings collects stormwater runoff from the dirt road and from the trailhead parking area.

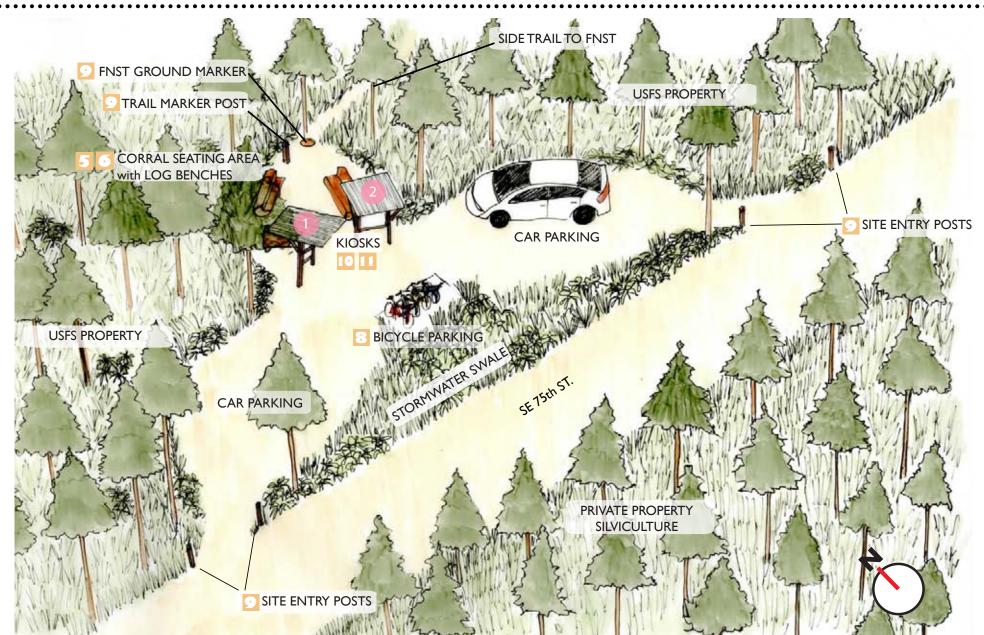## *KEYSTONE DESIGN PROPOSAL- SITE DESIGN PROPOSALS*

Fig. 15 - Axonometric view of the Keystone Trailhead design proposal. Site entry posts similar to the trail marker posts give recognizable but understated signage for the site entry.

KEYSTONE DESIGN PROPOSAL- INFORMATION AND INTERPRETIVE PROPOSALS

The kiosks act as a gateway to enter the Trail. Once the visitor passes through the kiosks they will not encounter automobiles aside from road crossings.

KEYSTONE DESIGN PROPOSAL--STRATEGIES EMPLOYED & CONSTRAINTS ADDRESSED

	COMMUNITY TRAILHEADS	-Lack of Awareness -Lack of Interest -Lack of Automobile -Lack of Discretionary Income	**BUILD FOR LOW MAINTENANCE**	-Lack of Interest -Fear of Violence/Discrimination -Disapproval of Activites Encoun.
	CELEBRATE URBAN TRAILS	-Lack of Awareness -Lack of Interest -Poor Health/Body Image -Lack of Automobile -Lack of Discretionary Income -Lack of Time	**SUPPORT ALTERNATIVE TRANSPORT.**	-Lack of Automobile -Lack of Discretionary Income -Lack of Time
	ARRIVING BY BIKE (or FOOT)	-Lack of Automobile -Lack of Discretionary Income -Lack of Time	**GET WITH THE TIMES**	-Lack of Interest -Lack of Time -Fear of Violence/Discrimination -Disapproval of Activites Encoun.
	HIERARCHY OF SIGNS	-Lack of Awareness -Lack of Interest -Fear of Violence/Discrimination	**INFORMATION CLEARING-HOUSE**	-Lack of Awareness -Lack of Interest -Lack of Time -Fear of Violence/Discrimination -Disapproval of Activites Encoun. -Poor Health/Body Image
	THE CORRAL	-Lack of Interest -Lack of Automobile -Lack of Discretionary Income -Fear of Violence/Discrimination -Disapproval of Activties Encoun. -Poor Health/Body Image	**LOUD ROAD CROSSINGS**	-Lack of Interest -Fear of Violence/Discrimination -Disapproval of Activties Encoun.

Table 4- Matching patterns and constraints addressed at the Keystone Trailhead.

FT. PICKENS DESIGN PROPOSAL--PATTERNS EMPLOYED & CONSTRAINTS ADDRESSED

View towards trailhead from SE 75th St. The lightness of the design allows the trailhead to blend into the forest context while still being recognizable.

REDESIGN REFLECTIONS

Reflections

The design process was used as a tool to test and refine the usefulness of the FNST Trailhead Design Patterns outlined in Chapter 3. Running the patterns through the conceptual design phase helped to define the role of the design patterns in the creation of a trailhead site.

The informational and interpretive strategies will most likely be the simplest to implement because they will involve the least amount of interagency and partnership collaboration. The design of trailhead sites will be the next, and more challenging set of strategies to enact. Developing trailheads will often involve coordination between local land managers or landowners, Forest Service staff, and FTA staff and volunteers. To create a positive Trail experience, it is critical the trailhead sites are developed thoughtfully; the site design strategies are the most spatially evocative of the strategies developed for this project. Finally, the planning scale strategies in this project are perhaps the most vague and conceptual thus far. They are, however, as important as the informational and site design strategies, as the planning scale will bring a heightened level of visibility and relevance for the FNST as a locally based recreational resource. Defining a hierarchy of importance for implementing these patterns is difficult, if not impossible, because to achieve their full potential, the patterns should be implemented as a system. It is, however, possible to pick and choose which patterns are the quickest to implement and there is certainly no harm in prioritizing the implementation of certain patterns over others, in a phased sequence that looks at the design of a site as a long term project with a series of short-term objectives.

These strategies are useful as a conceptual tool. The expected outcomes sections of each strategy can aid in defining the goals of a design. A benefit of using this set of strategies is that they allow flexibility and creativity in the way that they are expressed. However, the lack of spatial specificity engendered in the concept of using a design pattern language does not help in creating a quick, one-size-fits-all type of solution that may be desirable to land managers without a design background or design staff at their disposal. For this reason, it is recommended that a design professional be consulted at the beginning of the design process for all trailhead sites.

CONCLUSIONS

"The vast possibilities of our great future will become realities only if we make ourselves responsible for that future." ~Gifford Pinchot

FINAL THOUGHTS

Project Summary and Assessment

The goals of this project were three-fold:

1) To identify a theoretical framework for understanding the phenomenon of social group underrepresentation, (based on gender, age, socioeconomic status, and race/ethnicity), in outdoor recreation that has implications for the physical environment;

2) To use the chosen framework to identify ways in which the existing conditions of trailheads may reinforce the existing paradigms of outdoor recreations users;

3) To develop a set of design strategies, based on the findings made in the methodology, for trailhead development that will create a more supportive environment for diverse social groups

The review of frameworks for understanding the underpresentation of minority social groups determined that the "leisure constraints" framework had the most clearly tangible implications for analysis of the physical environment and for making recommendations to alter the existing paradigms of trailhead design. The assumption was made that by reducing the number of constraints users have in accessing outdoor recreation resources that a broader audience will participate in outdoor recreation activities. The next step was to examine the existing conditions of trailheads on the Florida National Scenic Trail in order to find patterns in the physical environment that might reinforce the nine constraints identified int he literature review. This was achieved by an inventory taken during two visits to FNST trailhead sites. The inventory involved analyzing the sites' existing condtions and speculating about how those conditions may break down or reinforce the nine constraints. A set of undesirable patterns was discovered at these trailheads. A general

trend towards a lack of design at the trailheads and spatial disconnect from human communities was evident on all sites. Several more specific undesirable conditions were observed and identified as described in Chapter 2. In response to these undesirable conditions a series of design strategies was developed with the intention of serving a wider group of users, thereby increasing the social relevance of the FNST and other trails that would use these strategies as a recreational resource.

The findings of this study indicate that to serve a more socially diverse clientele that recreational resources, such as the FNST, could use simple design interventions to accommodate diverse users. It was also found that the design suggestions made, while derived specifically from studying conditions on the FNST, could easily be transferred to trailhead sites on other trails. Initially, it appeared that this study would be geared more towards identifying what user groups were underrepresented and what their preferences may be for architectural styles and site furnishings. However, it was determined that a preference based approach would only shift the hierarchy of outdoor recreation users rather than democratizing access. The constraints framework provided at a way of looking at the issue that allows the designer to reach the widest possible group of users while not reinforcing the existing social hierarchy or creating a new social hieararchy.

Some of the strateiges that would most directly connect potential new users to the resource, however, may be some of the most difficult to implement such as creating side trails that connect towns and cities to the FNST because of land of the land aquistion needed and the current focus on completing a continuous trail corridor. Further, a philosophical leap may need to take place within FNST leadership to employ strategies that engage urban areas. Nonetheless, the results of this study provide practical and implementable strategies to support more diverse users

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based on age, race/ethnicity, gender, and socio-economic status.

These design solutions should also be considered as part of a larger system for engaging the public in outdoor recreation. The belief that the resource existing is better than it not existing is not enough to attract new trail users. Good designs and infrastructure must be paired with marketing and outreach efforts to introduce unaware or reluctant users to outdoor recreation.

This study will be useful in creating a vision for how the FNSTs trailheads, engaging not only more users, but also a broader demographic of users. The methodology used is, however, inherently subjective and perhaps even speculative. Further, because no matrix was used for evaluation, the methodology will be difficult to duplicate, although the strategies and concepts are easily transferred to other sites and other trails.

Because no literature was found that talked about the intersection of social design and design for outdoor recreation, this is a field that needs to be explored further. Many studies have found conclusive results about what types of landscapes and recreation opportunities various ethnic groups prefer; it would be useful to study what types of designs for recreation facilities are preferred as well. These could be achieved through visual preferencing studies and surveys. Behavior monitoring, similar to that performed by urban design researcher William Whyte, should be performed on trailhead sites to understand whether users are engaged by informational and interpretive signage and to gauge what other needs existing trailhead users have in terms of circulation, seating, and other furnishings.

Next Steps for the Florida National Scenic Trail

It is suggested that the USDA Forest Service and Florida Trail Association staff implement a plan to test the efficacy of the design and planning suggestions made by this study. A case study should be performed that would show before and after results in trailhead usership on a cluster of trailhead sites. The study should begin by monitoring trailheads to determine the current numbers of FNST visitors to the sites. These user counts should occur during winter and spring, which is prime hiking season in Florida. The part of the study should include a survey that tracks user demographic information and asks questions about the visitor's opinion of the trailhead's conditions. The next step in the process is to survey local area residents about the constraints they face in accessing the trail. Using the results of the constraints survey, trailhead designs should then be developed using the FNST Trailhead Design Strategies outlined in Chapter 3. Concurrently, an intensive marketing and outreach campaign should take place in communities near the trailhead sites used in the study. Once the designs are completely installed and the marketing and outreach campaign has begun, the site usage surveys should be repeated to monitor whether the redesign, marketing, and outreach efforts have been effective in bringing more users to the Trail.

Where the FNST takes the current study's findings is in the hands of those who administer the trail. Until now, the FNSTs development has been concentrated on completing an uninterrupted Trail corridor througout Florida. At this point in the trail's history, a shift in approach should be made to enhance the existing sections of Trail and their associated trailhead facilities. Using this decentralized approach, improvements would be made on the sections of the Trail that would serve the largest numbers of potential users--those sections of trail closest to large urban areas and those that currently host the most users. The next step would

be to serve the next most potentially populous trail sections, and so on. This approach will make existing sections of trail more accessible to local residents and will create better trail experiences, thereby increasing the number of advocates and stewards for the trail that would rally support to complete and improve other sections of the FNST and whol would create word of mouth advertising about their trail experiences.

Broad Implications for Trailhead Design

To connect new users to the land, we must understand the audiencs we are trying to serve. The experience must be designed to address the constraints that potential new users face instead of only serving the status quo of trail users who are accustomed to the existing paradigm.

 In desiging a trailhead the team responsible should consider the trailhead experience as more than simply the furnishings provided on a site. The design must consider how visitors will discover the facility, how they will get transport themselves to the trail, how they interact with the site, how comfortable they feel on the site, and how they share their experiences with others. In designing the trailhead, the design team should see it as a connective tissue between visitors' homes and the trail; if any piece of the experience of getting on the trail is neglected, a disconnected is created in the trail experience and the trailhead will not function at an optimal level socially.

To engage more diverse users, trailheads must function as more than simply a place to leave a car and start hiking. Trailhead designs must take into account the needs of children, families, and those unfamiliar with the wilderness. They must appear to be cared for to feel safe and comfortable. In urban areas sites should be chosen to increase access to the trail, in friendly locations that welcome the local community.

Although derived from observations made on the Florida National Scenic Trail, the Design Strategies outlined in Chapter 3 are clearly transferrable to other trails throughout the nation for two reasons:

1) The existing conditions of the trailheads examined in this study are representative of the conditions of many trailheads in the United States; and

2) By understanding constraints that transcend location and group membership, the design strategies became universally applicable.

It must reiterated that the improved design of these sites alone will not increase usership or change user demographics. The trailhead design itself must be accompanied by marketing and outreach efforts that aim to serve more diverse groups of users. Design, marketing, and outreach approaches must have many prongs, and they must be fluid to respond to the needs of specific user groups.

The ultimate goal of improving the trailhead experience is to increase the number of visitors to hiking trails and other outdoor recreation opportunities.   In this time of great demographic shifts, an exciting opportunity exists to serve not only the status quo of hikers (who are a decreasing proportion of the population), but also to increase the social relevance of our public open space to a wider demographic of users, which will in turn increase financial and political support for their protection. To garner this support designers and administrators must look past supporting the existing paradigm of trail users; the design team must anticipate the needs and constraints of other social groups.

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